Adam of Buckfield and the early universities

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Edmund John French

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Abstract

This thesis represents a systematic analysis of one of the commentaries of Adam of Buckfield on the physical works of Aristotle. The aim is to indicate how natural philosophy was taught in the early universities and how Aristotle's text became canonical in the arts course. The evidence, from extensive palaeographical research, is used to assess Buckfield's influence at an important time when Oxford was a young university, still shaping its curricula. It is argued that since natural philosophy was forbidden in the university of Paris during the time when Buckfield was teaching, a particular importance attaches to Oxford's interpretation of the physical works of Aristotle. The subsequent revival of natural philosophy in Paris and other universities that followed the Parisian model, it is argued, therefore owes a considerable debt to Oxford and its early masters, among whom Adam of Buckfield was the earliest to complete a commentary on all the major physical works. The thesis examines the manuscript traditions in which Buckfield's works survives: separate copies of commentaries; whole commentaries written out in the *Corpus vetustius* collections of physical works; fragments of commentaries in the standard gloss in the same collection. Reasons are suggested for the difference between the natures of these manuscripts in the context of thirteenth-century teaching. A special study of Buckfield's commentary on the *De differentia spiritus et anime* illuminates these kinds of manuscripts, indicates where further work will be profitable, and allows a reconstruction of the teaching material and techniques of Oxford regent masters of the thirteenth century.

Introduction:
The historical setting of thirteenth-century Aristotelianism

From around 1150 to 1250 a vast amount of knowledge, mostly classical in origin, became available to medieval Europe mainly through contacts with the Arab world. Arab philosophers had inherited the vast corpus of Greek science and philosophy. This knowledge was to come to the West by contact with Arab culture, and the crusades and trade furthered this contact. Jews were also important in acquiring this knowledge and thus passing it to the West. The impoverished classical heritage of the West received major additions which would radically change the content and methods of thought. This was to be a reorientation in Europe's intellectual life.

Much of this knowledge was concerned with 'science': astronomy, astrology, mathematics and medicine. An important component was attributed to Aristotle or to his commentators: a natural philosophy that differed from these subjects. Aristotle's lost works on logic, metaphysics and natural knowledge, and Arabic philosophy and science (medicine and mathematics) contained a vast new scope for learning. Of these components the Aristotelian system was by far the most important. This event was greatly to influence the intellectual life of the medieval Latin scholars. Aristotle or Aristotelianism would come to dominate the ways of thinking amongst learned men. This was especially the case in the early universities that were forming in Europe at the same time. These institutions were to develop hand in hand with this new body of knowledge.

Translations

Much effort went into obtaining and translating the texts that contained this new knowledge. Such centres as Toledo and Sicily were essential as centres of translation from Arabic to Latin. Toledo, recently reconquered from the Arabs, gave the Christian West great opportunity of access to Arabian commentators on Aristotle and therefore Aristotle himself. On the journey of this new knowledge from Toledo to Paris and Oxford Callus informs us:

> The fact is, as Dr. Birkenmajer has conclusively shown, that the scientists and physicians of Toledo, and particularly the Salerno doctors, brought the new learning into wide circulation, and through them it spread from Salerno and Toledo to Bologna, to Montpellier, to Paris, to Naples, and to England.[1]

Why was this knowledge so sought after in the West? The new *corpus* of Aristotelian learning greatly added to and improved the fragmentary amount of Aristotle that had survived in the west. The new texts, especially the texts of the *Logica Nova*, followed on from and added to the Aristotelian logic that had proved so powerful in the eleventh and twelfth centuries. The dialectical texts were of central concern to education. Once translated and distributed they were to become the first accepted canon for higher education before other Aristotelian texts. This is reflected in statutes from Paris in 1210. This new natural philosophy, as part of this newly acquired knowledge, had great impact on the curriculum of the new universities. It was to become the core study in the arts faculties of these institutions (see Chapter 1). This was to open the doors to Aristotle's complete system of thought, including his natural philosophy. Since this system of thought had no rival at the time (indeed the medievals honoured him with the term '*Philosophus*') it is no wonder that the new knowledge was eagerly pursued by many.[2]

The intellectuals of medieval Europe, because of their great respect for ancient authority and ancient authors, must have been very excited by the opportunity to gain access to unknown texts by that most respected of ancient thinkers, Aristotle. But surely even such respect for an author could not elevate him to such a status that Aristotle was to achieve unless his works were of general interest? Aristotle's works *were* of general interest. For example the *De Anima*, an influential text of Aristotle's works in the middle ages for theology (and one of his most important natural works), was of central interest to Western intellectuals. This was because it dealt with the soul, questions about which are central to Christianity. This text was extremely influential. Whether or not this text, or other Aristotelian texts, agreed with the Christian view (and they often did not) is not

the most important point, which is that it formed a basis on which argumentation could be pursued.

In the sphere of natural philosophy the arrival of Aristotle's *libri naturales* (the physical works or his natural philosophy) had a profound effect:

> This event became the starting point of that great intellectual movement which in the course of the following two or three centuries transformed natural philosophy from a rather primitive Platonic view of nature to a highly developed system of physical doctrines, in many respect not unlike later systems.[3]

Aristotle's natural philosophy, arriving in the West after the rise of logic, gave the intellectuals a new system of enquiry for the explanation of the physical world. Natural philosophy was hard to resist as it was a progression of thought from Aristotle's logic that had so recently become so entrenched. The strength of the Aristotelian system was that it represented a comprehensive world view. It explained the world in a rational way using logical terms. In respect to rationality Aristotle had no peer. He was unopposed:

> When Aristotle was discovered, the first thing that was found to be impressive was the obvious rationality of his logic .... The whole subject appeared to be self-evidently conclusive ..., it was natural that the whole Aristotelian store of wisdom should be regarded as a more or less infallible source of knowledge in the 'natural' sphere in the same way as the Bible was in the realm of 'grace'.[4]

According to Marenbon:

> Aristotle and the other authorities of the arts faculty were valued because they were thought, in general, to put forward the best rational explanations of the problems they examined.[5]

The Universities

Thus at the same time that this new knowledge was spreading through the Latin West, in parallel universities were springing up across Europe at Bologna, Paris, Oxford and later Cambridge. They soon developed into powerful guild-like corporations with their own regulations and their own statutes. They became highly influential and powerful institutions, often embodying, moulding and acting as a creative force within a culture. Such an institution as a university does not just appear but must be the product of strong social, cultural, economic and political factors (see Chapter 1).

Thus the formation of the university or *studium generale* was a development crucial for the development of education in the middle ages. The revival of lost knowledge went on hand in hand with the new *studia*: it was where this knowledge was taught. One should not be seen as the product of the other. With a common background of favourable economic and social change, universities developed co-dependently with the revamped intellectual world. The new learning may have given vigour to education but it could not thrive without the universities as its centre. The universities were part of the same phenomenon but not a product of it, as Cobban implies:

> The universities were conceived during a period of intense and eclectic intellectual activity. In a sense, they were the eventual product of the manifold intellectual developments which had gathered momentum in the course of the eleventh and twelfth centuries. Of prime importance here were the discovery and assimilation of the heritage of the Greek and Graeco-Roman worlds and the subsequent efforts made to reconcile a vast corpus of pagan material with Christian learning.[6]

This new knowledge opened many doors to the growing secular men of learning, and this, accompanied by the economic and social situation and all that it entailed, led to a changing world of thought. Lawrence points to an "expanding mental universe"[7] of the new secular masters of the emerging schools, and says this scholastic movement

"culminated in the universities". However, as noted above, the growth of this new wave of learning and the development towards the *studium generale* must be seen as co-dependent, and in this way Lawrence is misleading. Both the universities and the new *corpus* of knowledge were to develop from small foundations to being powerful and long-lasting medieval institutions. They became the prime centres for education above the level of basic grammar and they produced the accepted curriculum for this education. The degrees obtained at the universities were recognised, in theory at least, throughout Christian Europe.

Canonisation

Aristotle dominated the study in the arts faculties of the medieval universities.[8] The arts were considered necessary study in the northern universities before going on to study in one of the higher faculties of theology, medicine and law. In the south the arts were often studied together with medicine. Aristotle also had implications for the study of medicine and theology. As an early teacher Adam contributed to the *longue durée* of the university Aristotle. By the middle of the thirteenth century Aristotelianism was firmly established in the universities. This situation did not change until the mid-seventeenth-century 'enlightenment'. Even this reaction against Aristotelianism necessarily occurred against a background dominated by Aristotle:

> Thus most of the arguments of Descartes, Spinoza, Leibniz and Locke for the existence of God as well as many of their views about the nature of substance and causality are derived from medieval sources.[9]

Many thinkers in the renaissance and enlightenment owed much to the medieval scholars:

> Secondly it becomes more and more impossible to understand the birth of the new science without a fair knowledge of the old one. It is impossible to understand the new doctrine of COPERNICUS or GALILEO without a

> sufficient comprehension, not only of the ideas of PTOLEMY or ARISTOTLE but also of the medieval followers of the later.[10]

The new 'science' developed from the old, as medieval Latin 'science' developed from its predecessor:

> There was something in Aristotle's writing which still commanded respect from those who had once studied his work and did not know it merely from hearsay. It is common knowledge that Hobbes, who gibes constantly at him, had in fact studied him with care and borrowed much from him, and that Descartes deceived himself in thinking that he had shaken off the scholastic philosophy.[11]

This is the historical interest of Aristotelianism; it held sway for so long. Not only were Aristotelian texts to become 'canonised' but also the Aristotelian approach was the way to do things for many fields of learning and much that comprised university teaching, especially in the arts. The Aristotelian method, too, became accepted and 'canonised'.[12]

In Chapter 1 we will see this 'canonisation' of Aristotelianism. A canon of texts is an agreed and standard collection of writings that form what is considered essential reading for a specific subject, the writings being considered as authoritative for the area. A canon of texts is important in the teaching and learning of a subject if this subject is to be taught and recognised across national frontiers, as was the expectation of education in the middle ages. A canon of texts helped to standardise education and qualifications. Indeed this is still a function of a canon in education.

The new body of knowledge "gave the arts course in the universities a new development and special emphasis".[13] Other faculties also saw widening of knowledge but not to the same extent as arts. By the latter half of the thirteenth century most of Aristotle's works had found their way in to the medieval arts course and totally dominated this faculty. His works and the commentaries on them became the dominant texts in the required reading for the attainment of an arts degree, supplementing or

replacing the traditional arts syllabus consisting of the seven 'liberal arts'.

Aristotle could be said to have bestowed on the west a whole package of knowledge, a whole 'philosophy' as it were. Aristotle was of the utmost use in the medieval intellectual world (although his metaphysics were awkward for their Christian audience). But this cannot fully explain why Aristotle so rapidly and so completely dominated the arts. Aristotelian works had been commented upon by Arab commentators before coming to the West, especially in the works of Avicenna and Averroes. Although the commentaries of Avicenna and Averroes arrived in Europe after the actual Aristotelian texts, their presence was influential in the understanding of Aristotle. This aided the process of 'canonisation' in Europe, Aristotle's works having already been compiled and commented on by monotheistic Arab writers whose religious outlook was not too dissimilar to the Christian.[14] Thus Aristotle was made easier to swallow for the Christian west through the commentaries of the Arabic philosophers. Averroes may have made some aspects of Aristotle easier to understand, yet criticism of some of Averroes' interpretation was often more severe than that of Aristotle himself. This facilitated the adoption and canonisation of Aristotelianism in that it gave additional weight of authority. The power of Aristotelianism was more fully utilised with the aid of these commentaries.

The fact that Aristotle was already known to some extent in the West also aided the adoption and consequent 'canonisation' of his works. The existing respect for his authority must have drawn many to newly discovered works of Aristotle, "acclaimed by succeeding generations as one of mankind's greatest intellectual geniuses."[15]

The first stage of the canonisation seems to have occurred in Spain, where the translations of Aristotle and of other authors into Latin were taking place. Since obtaining a translation of a text from the Arabic sources was an expensive and hazardous affair, scholars must have chosen works of greatest interest to them. It was these texts that were to be dispersed around Europe. Texts do not translate and distribute themselves and need willing and able academics with the resources behind them to be able to travel to the location of the manuscripts and to afford their maintenance during

translation and often actually to pay for translation. So already the selective process of 'canonisation' was at work. Indeed some texts were avoided in this process; for example, the pre-Aristotelian Atomists with their philosophy which was offensive to Christian dogma, were of no use for Christianity in contrast to Aristotle. The avoidance and suppression of such texts furthered the influence of what was to become the canon.

For a scholar to possess a translation of some newly discovered work no doubt meant great prestige through the increasingly more excited intellectual world. This new knowledge was probably socially advantageous and desirable, and perhaps new texts could win a master fame and fortune. Certainly he could attract many students by offering inspiring new knowledge, interpretation and techniques. The 'heroic' teachers, such as Abelard, became rich and famous by attracting students[16]. This was another factor in the 'canonisation' of these texts; many wanted to know this new knowledge. Soon it became the knowledge that a scholar not only found advantageous to have but was expected to know to gain any credibility in the academic sphere.

The 'canonisation' of Aristotelianism and the emergence of the first universities are unquestionably events of major European importance. We shall be concerned with one particular expression of that 'canonisation', a manuscript 'tradition': a family of manuscripts that contained Aristotle's physical works, the *libri naturales*, in a form suitable for teaching. This is called the *Corpus vetustius* or 'old' collection (see Chapter 2).

Adam of Buckfield's place in thirteenth-century Aristotelianism

Adam of Buckfield fits nicely into the picture of 'canonisation' of Aristotelianism and the rise of the universities. He wrote and taught at a crucial time for the 'canonisation' of Aristotelianism He was an important figure in the late thirteenth century as a commentator on, and a teacher of, the Aristotelian natural works that were the canon of the arts faculty. He is important in the early development and subsequent canonisation of Aristotelian natural philosophy.

The picture of Adam that emerges is as a secondary figure in the medieval intellectual hierarchy who perhaps deserves a more prominent position:

> The large number of surviving manuscripts preserving Buckfield's commentaries on the *libri naturales*, moreover, would seem to indicate that his works were valued as aids in unravelling the meaning of the difficult Latin translation of Aristotle.[17]

Adam's division and analysis of the often difficult texts seems to have been central to his influence. He made the texts easier to get to grips with. Thomson describes Adam's commentaries as follows: "their very clarity and monotonously systematic formulae made them useful and useable".[18] The fact that Adam's work survives extensively in manuscript form (see Chapter 2), often with later authors, must attest to his usefulness for the understanding of difficult texts.

Adam's commentaries were used in a European context. Adam wrote at Oxford and Noone suggests that his commentaries were used in Paris, beginning in the third quarter of the thirteenth century, that is, before commentaries by Albertus Magnus and Thomas Aquinas became popular, and enjoyed widespread use by Arts masters.[19] From Paris, the *parens scientiarum*, the use of his commentaries spread into Europe. This is seen in the glosses that are contained within the *Corpus vetustius* manuscripts, which will be examined in detail in Chapter 4. Commentaries attributed to Adam of Buckfield are found in many manuscripts in European university libraries (see Chapter 2), possibly reflecting widespread use in teaching or a least a respect for his works. Indeed, with further research, commentaries and fragments of commentaries by Adam are certain to be identified in glosses in European manuscripts. These glosses are evidence of Adam of Buckfield's teaching. Adam's importance for the study of university teaching seems clear.[20] His work appears in manuscripts that are found in France, Italy, Spain, Germany, Belgium, Poland, Austria and of course England. It appears in many different European hands. The manuscripts are found at many of the major medieval university centres such

as Paris, Padua, Bologna, Oxford, Cambridge, Basel, Erlangen, Florence, and Leipzig. The manuscripts are also found in many libraries and collections, importantly for this present study in monastic libraries (see Chapter 2). Indeed Adam's surname, Buckfield, appears in many forms in the European manuscripts. The very English name is corrupted (see Chapter 2) in ways that might be expected from scribes unfamiliar with English, which suggests that Adam was copied by many different scribes in various locations. Adam's European appeal seems clear.

There are about sixty manuscripts known to scholars that contain some of Adam's work or work attributed to Adam. This study has increased the number of manuscripts known in which Adam's work is found (see Chapter 4). This number of manuscripts can readily be compared to the number of manuscripts in which other commentators appear. This comparison might throw light on the importance of Adam of Buckfield; however, comparisons of this type are circumstantial rather than concrete evidence of an author's importance (see Chapter 2). The manuscripts date from the mid-thirteenth century, when Adam was writing and teaching, to the early fourteenth century when he seems to have gone out of use. This coincides with the appearance of the *Corpus recentius* that replaced the *Corpus vetustius* as the book that reflected the teaching of natural philosophy. This may well be an important factor in determining the period in which Adam's commentaries were used. We shall also see that the new translations from the Greek of many natural philosophical works may have made Adam's commentaries redundant (see Chapter 2).

The importance of Adam's role as a commentator is that the translations were new in his day and had to be understood before they could be taught. He wrote his commentaries to help explain this new knowledge to his medieval students. Indeed Adam was one of the earliest Oxford commentators. He shows how at first the Latin scholars had tried to make sense of these often obscure texts.[21] The texts translated from Arabic into Latin had suffered translation maybe two or three times. This cannot have helped their clarity. Indeed many of the Latin texts were obscure not only because of translation but because they were by Aristotle himself, a notoriously difficult author. This increased

demand for commentators, especially Avicenna and Averroes, to help the exegesis of the texts, the *'libri naturales'*.[22] The ability of these two authors to illuminate difficult texts gave them astounding influence on the Latin scholars who were trying to understand Aristotle, earning Averroes the title of the 'commentator' on Aristotle. Commentary was essential in the teaching of this knowledge, but commentary at Averroes' level itself needed interpreting in the new circumstance of the universities. Adam's commentary made this possible because he was influenced by Averroes and followed his expositions.

If indeed he was an early, or the earliest, commentator at Oxford on the whole corpus he was probably one of the first to be able to draw on the more complete system, that is, Aristotle and his commentators. The commentaries of Avicenna were older than those of Averroes, and indeed the work of Averroes came into use in northern Europe in the 1230s, a mere decade or so before Adam wrote his commentaries. Adam's work represents an interesting transition from Avicennan to Averroistic[23] in the teaching methods of the university,[24] and the text of the *De differentia spiritus et anime* clearly reflects this (see Chapter 3). This transition is central to the development of Aristotelianism and university teaching and thought in general, an interesting but relatively unresearched aspect of thirteenth-century university life.

Adam as an Oxford master has further historical importance. We shall see in Chapter 1 that Oxford was important in the adoption of and subsequent commentary upon natural philosophy. Grosseteste, so central a figure for the early years of Oxford university, was interested and active in natural philosophy. This seems to have encouraged the study of the area in Oxford. European natural philosophy started in Oxford and Paris, and it will be argued that Oxford influenced Paris in this area also. Oxford commentators may well have an important role in this process. Adam as an early and systematic commentator on the *libri naturales* combined with the development of this area of thought in Oxford makes the topic one of major historical importance. Many European universities followed Paris as a model and this may have been a factor helping to establish the canonisation of these texts in European university life and thought. The great interest in Adam is that he was teaching natural philosophy in Oxford when it was

banned at Paris. After he had finished his commentaries natural philosophy was resumed at Paris, and it is likely that this happened following English example. Adam is very likely to have been important in this change. One function of this thesis is to locate sources and to begin a systematic search of material to illuminate Adam's influence in this process.

Adam, then, was writing at a time when the study of natural philosophy was vigorous in Oxford. The bans upon reading Aristotle's physical works enacted in Paris in 1210 and 1215 were local, and while they seriously retarded the study of natural philosophy in that university they did not apply elsewhere. By the mid-century the bans at Paris were in decline, if not largely or wholly ignored; natural philosophy was making a come-back, illustrated by the statute of the English nation in 1252 demanding the study of *De Anima.* A name like Buckfield, used widely over Europe, may have reflected Oxford's influence in natural philosophy on Paris;[25] since the teaching and studying of natural philosophy carried on unhindered in both Oxford and to some extent Toulouse, it seems sensible that it must have been from these universities that Paris would have to look to catch up in the study of this area. Not only had natural philosophy been banned at Paris but it was encouraged in Oxford: "That it was Oxford and not Paris which took the lead in this respect is largely due to the favour which Aristotelian studies found with Grosseteste."[26] If indeed there was this influence it would be easy to see how it could spread across Europe. Paris, of course, was the main inspiration for many European universities not only in constitution but in its teaching methods and thought.

The growth in natural philosophy was apparent in Paris in the twenty years up to the condemnation of 1277 when a number of propositions used for disputation in the arts were condemned. Many of them concerned natural philosophy and seemed to the theologians to border on heresy. The condemnation was an attack on the radicals from the arts faculty (for example Siger of Brabant), not on the main body of masters and students and not on the curriculum. It condemned certain doctrines but not whole texts or commentaries upon those texts as the earlier bans had done.[27] Since the attack was not on the main Aristotelian curriculum, it would not have caused a hindrance to the canonisation of the teaching of Aristotle's natural philosophy, which could only happen in

a mainstream environment. Indeed condemnation similar to that at Paris was carried out in Oxford under Kilwardby, a Dominican (as was Aquinas) and therefore a probable sympathiser with Aristotle. He was unlikely to have been as extreme in his condemnations as Tempier (the bishop of Paris) was at Paris. The Parisian bans and university statutes will be dealt with in full in Chapter 1.

Adam's place in the canonisation of Aristotelianism in the thirteenth century is clear. However, unlike some other commentators or university men, he has received little attention from historians concerned with this area. Although he has been given some attention by some eminent historians such as Grabmann, Pelster, Pelzer, Thomson and Bataillon, this is nevertheless a very small amount of secondary literature considering Adam's frequent occurrence in manuscripts and his importance for the teaching of natural philosophy in the thirteenth century. This is obvious when Adam is compared to someone like Albert the Great or Aquinas. He was not as brilliant as these men, yet his commentaries are central to their intellectual background. They were writing theologically to theologians of their Orders, long after their arts education, while Adam's importance is for university teaching, as an early and systematic commentator and university master in arts at a level that made Aristotle intelligible to the great bulk of those who were to become masters of arts. It was here, not at the rarefied heights of the Dominican Order, that the common understanding of Aristotle among the educated men of the thirteenth century took shape.

No critical editions of Adam's commentaries have been published, although he is known to have written on the whole of the *Corpus vetustius*. His contribution to medieval intellectual life has not been thoroughly considered.

Thomson's three articles on Adam of Buckfield, along with some by Grabmann, Pelster and Pelzer, are the main secondary material concerning Adam. Articles by Bataillon and lastly Noone add to the general picture created by Grabmann and Thomson. Callus also mentions him. These works also spread over a considerable time. No continued research has been done on Adam or, it seems, on material contained within the *Corpus vetustius* manuscripts. It seems that Adam of Buckfield has missed the

attention that he deserves. However all these authors point to the significance of Adam of Buckfield for thirteenth-century Aristotelianism.[28]

It seems that much more could be written about Adam of Buckfield than there has been to date. Such a well-used commentator deserves more study, especially in manuscript form. Indeed, besides the thinness of the secondary literature, a second important reason for presenting a study of Adam is to prompt a study of his texts themselves. A systematic study of the *Corpus vetustius* with which Adam's commentaries are concerned must reveal more about the selection of passages from his commentaries in the teaching of later masters (see Chapter 4). Comparison of these passages with the full texts of his commentaries will tell us a great deal about the mechanisms of teaching in the arts course at a crucial time in the development and canonisation in this area.

Chapter 1 of this thesis deals with Adam's life and his work in context with Aristotelianism in the thirteenth century, and we see him in the historical circumstances of Oxford and Paris universities. Chapter 2 discusses the manuscripts in which the work of Adam is found. It differentiates between the types of manuscripts and discusses their origin and purpose. This Chapter points to the large number of manuscripts in which some amount of Adam's work is found. The third Chapter concentrates on one of Adam's commentaries, that is, his commentary on the *De differentia spiritus et anime*. Adam's commentary is presented with translation. His commentary is then discussed in detail. Chapter 4 gives evidence for the use of Adam's commentaries (especially the one on the *De differentia*) in the glosses of the *Corpus vetustius* manuscripts reflecting university teaching. The other authors who appear in the glosses are also discussed. The last Chapter connects Adam's work to the 'Oxford gloss' and gives an example of this gloss. The purposes of the gloss are discussed, as is its importance for European natural

philosophy.

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1. D.A. Callus. 'Introduction of Aristotelian learning to Oxford', *Proceedings of the British Academy*, (1943), 229-281 (p.232).
2 . There are a number of works covering the translation of texts. See David C. Lindberg, 'The transmission of Greek and Arabic learning to the West', in *Science in the middle ages*, ed. by David C. Lindberg (Chicago: Chicago University Press, 1978), pp.52-90. Charles Burnett, 'The introduction of Aristotle's natural philosophy in Great Britain: a preliminary survey of the manuscript evidence', in *Aristotle in Britain in the middle ages* (Rencontres de Philosophie Médiévale) (Turnhout: Brepols, 1996), pp.21-49. D. Jacquart, 'Aristotelian thought in Salerno', in *A history of twelfth century Western philosophy*, ed. by P. Dronke (Cambridge: Cambridge University Press, 1988), pp.407-428. M. T. D'Alverny, 'Translations and translators', in *Renaissance and renewal in the twelfth century*, ed. by R. Benson, and G. Constable (Oxford: Clarendon, 1982), pp.421-462.
3. O. Pederson, 'The development of natural philosophy 1250-1350', *Classica et mediaevalia*, 14 (1953), 86-155 (p.90).
4. A. Piltz, *The world of medieval learning* (Oxford: Blackwell, 1981), p. 261.
5. John Marenbon, *Later medieval philosophy (1150-1350)* (London: Routledge, 1987), p.18.
6. Alan B. Cobban, *The medieval English universities; Oxford and Cambridge. To 1500* (Aldershot: Scolar, 1988), p.10.
7. C. H. Lawrence, *The friars* (London: Longmans, 1994), p.10.
8. James A. Weisheipl, 'Curriculum of the faculty of arts at Oxford in the early fourteenth century', *Medieval Studies*, 26 (1964), 143-185.
9. Julius R. Weinberg, *A short history of medieval philosophy* (Princeton: Princeton University Press, 1964), p.291.
10. Pederson, p.88.
11. D. J. Allan, *The philosophy of Aristotle* (Oxford: Oxford University Press, 1970), p.165.
12. It was both the Aristotelian method and texts that were the core of studies; I have used the word canonised in an unusual way to highlight this duality.
13. L. J. Daly, *The Medieval University 1200-1400* (New York: Sheehan and Ward, 1961), p.77
14. However some Arabic doctrines, mostly from Averroes, were incompatible with Christianity.
15. Daly, p.79.
16 . John Marenbon, *The philosophy of Peter Abelard* (Cambridge: Cambridge University Press, 1971), p.13.
17. Timothy B. Noone, 'Evidence for the use of Adam of Buckfield's writings at Paris: A Note on New Haven, Yale University, Historical-Medical Library 12', *Medieval Studies*, 54 (1992), 308-316 (p.309).
18. S. H. Thomson, 'A further note on Master Adam of Bocfeld', *Medievalia et Humanistica*, 12 (1958), 23-32 (p.32).
19. Noone, 308-316 (p.316).
20. Noone gives the number of surviving manuscripts attributed to Adam as 56, more exist. Lists of these can be found in three articles by Thomson; S. H. Thomson, 'An unnoticed ms of some works of Magister Adam of Bocfeld', *Medievalia et humanistica*, 3 (1945), 132-133. Thomson, 'A further note...', 23-32. S. H. Thomson, 'A note on the works of Magister Adam de Bocfeld (Bochermefort)', *Medievalia et Humanistica*, 2 (1944), 55-87.
21. Thomson sees Adam as an early, perhaps the earliest, "systematic commentator on the physical corpus of Aristotle." Thomson, 'A further note...', 23-32 (p.24).
22. Callus, 'Introduction of Aristotelian...', 229-281 (pp.263-4).
23. Callus, 'Introduction of Aristotelian...', 229-281 (p 264).
24. Callus, 'Introduction of Aristotelian...', 229-281 (pp.264-5).

25. Noone, 308-316.
26. James McEvoy, *The philosophy of Robert Grosseteste* (Oxford: Clarendon Press, 1982), p.19.
27 . F. Van Steenbergen, *Les oeuvres et la doctrine de Siger de Brabant*, (Louvain: Publications Universitaires, 1938).
28 . Noone suggests Buckfield's commentaries were used in Paris in the third quarter of the thirteenth century, that is, before Albertus Magnus and Thomas Aquinas, and enjoyed a possible widespread use by Arts masters. Noone, 308-316 (p.316). Callus places Adam firmly in the development of natural philosophy as follows: "the development and growth of Aristotelianism in the Faculty of Arts about the middle of the thirteenth century is evident in Adam of Buckfield." Callus, 'Introduction of Aristotelian...', 229-281 (p.255).

Chapter one: Adam's life, work and historical significance

Adam was from Northumbria,[1] the son of a certain Robert de Cranteleye. He was born probably before 1220. His main interest for us is that he studied and taught in Oxford in the mid-thirteenth century and played a central role in the formation and development of natural philosophy in Oxford university and consequently other medieval universities.

In previous literature concerning Adam of Buckfield there has been a discussion as to the possibility of there being two Adams teaching and writing commentaries at Oxford at the same time. Pelzer[2] raised the question of the identity of two possible 'Adams', as did Grabmann.[3] However Franz Pelster argued convincingly that there was only one Adam,[4] persuading Dominique Salman with his argument.[5] According to Thomson, in the face of these opinions Grabmann reviewed his finding that there are two Adams.[6] Nothing in the present study suggests that there was more than one Adam.

Education.

Adam of Buckfield was studying at Oxford in 1238. He gained his MA by 1243 and his age was probably around 25, assuming that he was of average age for a student graduating at this time.[7] We do not know where Adam was taught his natural philosophy, but it was mostly likely either in the secular schools of the university or the Franciscan school which had been set up by the order in 1229-30 at Oxford.[8]

Adam of Buckfield seems to have had useful connections. He was recommended for a rectorship by Adam Marsh, a Franciscan, to Robert Grosseteste in approximately 1249 as one *magistrum Adam de Bokefeld latorem praesentium quem tam divinorum eloquiorum quam litterarum humanarum professio reddit commendabilem*[9]. Adam Marsh recommends Adam of Buckfield as an eloquent and lettered master, and as Noone says "Certainly, the wide range and thoroughness of Buckfield's Aristotelian commentaries confirm Adam Marsh's judgement about Buckfield's learning."[10] Adam of Buckfield was, then, respected at least by one eminent contemporary, as he was by the subsequent generations of scholars. This recommendation to Grosseteste probably

associates Adam with Oxford, and Grosseteste's links with Lincoln and Oxford are well known. This recommendation also helps to date Adam's life, for it must have been written some time before 1253, the date of Grosseteste's death.[11]

Adam became the rector of West Rounton, Yorkshire, in July 1243,[12] and later was admitted as the rector of Iver in Buckinghamshire on the recommendation of Lady Ada in 1249. At this point he was a subdeacon. Ecclesiastical records give us some information concerning Adam:

> *Magister Adam de Buckingfeud, subdiaconus, presentatus per dominam Adam, uxorem quondam domini Joannis filii Roberti, ratione dotis sue, ad ecclesiam de Euere vacantem per mortem Gregorii de Crescentio, ultimi rectoris eiusdem, cum constaret per legitima documenta de morte dicti G. rectoris, ad eandem admissus est in ea canonice rector institutus.*[13]

> The subdeacon Master Adam of Buckingfeud [Buckfield], presented by the Lady Ada, wife of the former Lord John, son of Robert, by reason of her dowry to the church of Iver, vacant by the death of Gregory de Crescentio, the last rector of the same, as appears in lawful documents concerning the death of the said rector Gregory, has been admitted to the same [church] and is canonically established in it as rector.[14]

Apparently he retained this position until his death, sometime between 1278 and 1294; Sharpe gives the date of his death as 1285.[15] Emden[16] says he became a canon and prebendary of Lincoln in 1264 or 1265 and he was still a canon in 1267. There is evidence from the Rotuli of Richard Gravesend, Bishop of Lincoln, that a certain Felicia de Kinebelle was admitted to her office as Prioress of Merlawe by Adam of Bokenfeld canon of Lincoln. This is in 1264.[17] At all events Adam followed a career path similar to many young men. His university training was in preparation for an ecclesiastical career, "If they progressed to holy orders, these university members would expect ecclesiastical

careers, including receipt of benefices and other promotions."[18] It seems likely that Adam of Buckfield received a benefice from his position as rector which allowed him to remain as a teacher and writer at Oxford, thus completing the large amount of commentaries that he produced. In general, "The Church provided an important source of funds by allowing unordained rectors to take licensed absences from their benefices for study up to seven years"[19] and "For those hoping to acquire an university education while non-resident, it was obviously necessary to hold a benefice from which they might licitly be absent. Such benefices were restricted by English canon law to rectories and to prebends in cathedrals or other collegiate churches."[20]

While Adam of Buckfield had connections with the Franciscans, it seems unlikely that he became a friar of the order at Oxford. He is sometimes described as OFM in the manuscripts which are often in religious houses, yet he held secular livings all his life, and could not have done this as a Franciscan.

When and where did Adam of Buckfield write his commentaries?

Adam of Buckfield taught as a master at Oxford. Whether he taught in Franciscan schools is not known. This would place his teaching at Oxford in the mid 1240s, since he obtained his MA in 1243. He would have presumably done his necessary regency in arts by 1245. This is an important fact for placing Adam's work in historical context. Noone argues that Adam's commentaries were available and used in Paris in the last quarter of the thirteenth century and that

> this finding alone tends to render doubtful the suggestion made by S. H.Thomson that Buckfield may not have finished composing his commentaries until long after his actual career at Oxford, perhaps as late as the 1270s.[21]

Noone is not alone in this idea. McEvoy is of the opinion that masters, such as Adam of Buckfield, were lecturing and writing commentaries upon natural philosophy in Oxford before the important statute of Paris university in 1255[22] (this statute will be discussed

later in this chapter). Pelster also suggests that Adam taught for longer than his necessary regency. However he puts the date of the composition of Adam's commentaries a few years later than is probable.[23]

Adam certainly taught at Oxford in the 1240's and his commentaries were used in teaching. His works must have obviously been used at Oxford before finding their way to Paris; the transmission of his works may well have been due to the masters and students who taught and studied at both universities. Maybe Adam's works reached Paris earlier than Noone suggests. Or maybe Adam's reputation took time to spread. Thomson says there is no evidence as yet that Adam taught in Paris,[24] but his commentaries were certainly used in teaching there.

I agree with Noone in thinking that Adam's work reflects his teaching as an MA rather than being polished pieces written later in life; indeed the style of his commentaries reflects this.[25] Again this points to the significance that his works have for thirteenth-century teaching. The large number of commentaries he composed is another reason to suppose that Adam continued to teach as a master of arts for longer than the necessary regency of two years stipulated in the statutes of the university.[26] The dates of Adam's church positions are important facts in determining when Adam was writing his commentaries and lead us to the same conclusions. The title of rector suggests that he received a benefice that helped support him whilst teaching in the arts faculty[27] although being absent from his living. Adam would need papal licence to do this,[28] and it seems likely that he may have received permission judging by his connection with Adam Marsh. He then took up the living at Iver in 1249, and this might have ended his period of teaching at Oxford. If this were so then Adam could have taught in the university for a period of up to six years, thus giving him a more realistic amount of time in which to write his many commentaries. This however was not usual: "masters who lectured in arts for many years before taking up other activities, like Roger Bacon or Jean Buridan, were few."[29] The number of commentaries written by Adam suggest that he was one of these few masters.

Thomson sees Adam as an early, perhaps the earliest, "systematic commentator

on the physical corpus of Aristotle."[30] If one is to agree with Thomson, Adam was writing at a time when a fairly complete Aristotelian *corpus* was just becoming available to the West.[31] If indeed he was an early or the earliest commentator on the whole *corpus* he was probably one of the first to be able to draw on the more complete Aristotelian system and the commentaries that accompanied it (especially that of Averroes). Again this would place Adam's work in the 1240s rather than at a later date.

The style of commentary also supports this date for the commentaries. Adam's work is not as highly developed as the commentaries composed in the 1260s and seventies, and we know from glosses in various manuscripts that Adam's commentaries were used for teaching. This I argue would not have been the case if his commentaries had been written outside the university environment. His style of division and analysis is obviously for the purpose of direct teaching. They are of practical use in understanding the text they comment upon. I argue that this is much more the work of a man who has to teach than commentaries of an older man with no practical demands on his writing. Later chapters will discuss his style of commentary.

Callus saw three stages in the development of commentary and teaching in natural philosophy in the thirteenth century. The first was the Avicennian stage. This was commentary in the manner of Avicenna, consisting of the exposition of Aristotelian texts by paraphrase blended with author's own thought. An example of this is the treatise on *De Anima* by John Blund.[32] The second stage was Averroistic in manner, this influence appearing from the 1230s with clearer and more concise comments on Aristotelian texts, without paraphrase. Consequently this type of commentary was more textually precise than the type of commentary of the first Avicennian stage. This second stage was also called the *expositio per modum commenti*. This method involved an elaborate system of division and analysis of the text. Adam of Buckfield adopted this method. In the third stage given by Callus commentary developed a new form. Divisions and analysis of text slowly disappear, giving way to *Quaestiones* on the *litera*, this being *expositio per modum quaestionis*, a discussion on problems arising out of the text, or connected in any way with it.[33] Conspicuous exponents of the method are Aquinas and Albert the Great.

Callus states that Adam of Buckfield's method represents the change from Avicennian to Averroistic.[34] He also observes, "The development and growth of Aristotelianism in the Faculty of Arts about the middle of the thirteenth century is evident in Adam of Buckfield."[35] Indeed the frequent appearance of Adam's work in the *Corpus vestustius* manuscripts also points to Adam writing in the 1240s; the earlier *Corpus vetustius* manuscripts date from the mid-century and these contain Adam's work. In the manuscript **Biblioteca Apostolica Vaticana, Urbin Lat. 206** there is a note on f.103v, *anno gratie m°cc°l°. tertio die Cathedre S. Petri recepit Willelmus de Salers XII solidos super istos libros naturales xx petiarum*. The mention of *peciae* suggests that this was a payment to the scribe. At all events the manuscript was complete by 1250 (see Chapter 2). This codex contains much of Adam's work (see Chapter 4), and may gives us a date by which Adam had composed some or all of his commentaries, although we do not know at what date the marginal commentaries were added.

All the evidence points to Adam writing commentaries in the 1240s as a Regent Master or *Magister artium* at Oxford.

The significance of Adam of Buckfield and his writings

The picture of Adam that emerges is as an important figure in the medieval intellectual hierarchy. On account of the early date of composition of his commentaries he deserves a more prominent position in the intellectual history of the time. The large number of manuscripts containing Adam's work attests to his popularity as a commentator and the usefulness with which his commentaries were viewed, Noone[36] and Thomson agree.[37]

Noone suggests Buckfield's commentaries were used in Paris in the third quarter of the thirteenth century, that is, before Albertus Magnus and Thomas Aquinas, and enjoyed a possible widespread use by Arts masters.[38] Noone's suggestion can be confirmed by the examination of the glosses that are contained in the *Corpus vetustius*. Here a brief description of this body or branch of knowledge is relevant.

The *Corpus vetustius*[39] is a collection of natural philosophical works along with

interlinear and marginal glosses and commentary upon these works that appear *in codice* with each other. The texts in the collection reflect what was taught on natural philosophy in the arts faculty of some universities (mainly Paris and Oxford). The collection of texts that form the *Corpus vetustius* was most likely compiled by the translators of the natural works.[40] All the main texts that compose the *Corpus* appear in the manuscripts; a typical manuscript contains *Physics*, *De caelo*, *De generatione et corruptione*, *Meteora*, *De anima*, *De memoria*, *De somno*, *De sensu et sensato*, *De differencia spiritus et anime*, *De morte et vita*, *De causis* and *De plantis*. Sometimes the *metaphysica vetus* is included.[41]

This, therefore, was a canon of accepted knowledge for the teaching of natural philosophy. That glosses contained within manuscripts of the *Corpus vetustius* reflect university teaching on natural philosophy, will be shown in the next chapter. The earliest of these manuscripts (after **BVA, Urb. Lat. 206**) date from the mid thirteenth century,[42] which is after Adam had finished composing his commentaries. Transcription of the glosses makes possible a search in them for the words of Adam's commentaries and indeed the commentaries of others. This can test the hypothesis that Adam's commentaries were one of the sources for the teaching of natural philosophy and the 'Oxford gloss' (see Chapter 5). I have found that some glosses are taken directly from Adam's commentaries *verbatim* (see Chapter 4). Glosses in these manuscripts, which are identified as coming from Adam's commentaries, give further evidence of his significance for teaching. This technique will prove useful in investigating other writers of commentaries. Indeed the origin of the compilation of the *Corpus vetustius* may shed light on to the important scholars who contributed commentaries:

> The *Corpus vetustius* could have been compiled in several places. We may note, for example, that Petrus Hispanus knew and composed commentaries on most of the "animate" part of the *Corpus* (but not the physics or cosmology) in Montpellier or Salerno in the 1230s and early 1240s, and Roger Bacon was writing "quaestiones" on virtually the whole *Corpus*, plus the *Metaphysics*, as a

> *magister artium* in Paris between ca. 1241 and 1247/1250. But England in the period between 1214 and ca. 1230 certainly provided the climate for the putting-together and the copying of Aristotle's natural science. The Paris injunctions against the teaching of natural science and metaphysics did not apply to the English schools, and English scholars had, at least since Adelard, a particular liking for the science of nature.[43]

Indeed, fragments of Adam's commentaries can be found in glosses in manuscripts in which they have been unsuspected: research for this thesis has discovered further manuscripts containing fragments of Adam's works. These glosses are evidence that his work was used in teaching. Adam's importance for the study of university teaching seems clear.[44] The close connection between these manuscripts and university teaching will be shown in Chapter 2. Manuscripts containing works attributed to Adam of Buckfield are found in many European libraries. This may reflect widespread use in teaching and a respect for his works.

The situation at Oxford: the teaching of natural philosophy at Oxford and Paris

A detailed description of the formation and development of the medieval universities is inappropriate here. Much has been written on this part of university history.[45] Certain aspects of the history of the universities of Oxford and Paris are however especially relevant to this study.

Demographic changes and urbanisation and growth of the state led to a common need in Europe, including England, for some form of organised further education. Students versed in the skills of writing could secure good careers. This is reflected in the fact that before the development of Oxford university English students seeking further education had to travel to the continent.[46] They were soon to become numerous enough at Paris to form a large 'English nation' at the university there. This nation also included Germans; however the name suggests that a significant proportion of the students were English. This constitutional apparatus of Paris university was to remain important and

powerful enough to last into the mid fifteenth century.[47]

So there was a need for a university in England: but why did it centre itself at Oxford? The town had no major ecclesiastical importance (a town that was the centre of a bishopric might be viewed as a more likely site because the Bishop's chancellor was at least in name in charge of the schools). Oxford was not even particularly renowned as a centre of education. It had schools but so did many towns of its size in the day. In fact Oxford's close neighbour Northampton could rival the town's schools and itself was as likely a site for a *studium generale*.[48] Likewise London and Winchester were possibilities.

Yet there were factors which encouraged education in Oxford. During the eleventh century Oxford was a meeting place for ecclesiastical councils and courts, on account of its convenient central position in the country. These meetings of such large numbers of literate clergy may have had an influence on the position of England's first university. Councils and courts may have provided experience for master and student. In the twelfth century Oxford was also a meeting place of strategical importance. The growing centre of Royal government required an army of literate officials. Not only would these factors bring large numbers of literates to the town; students could observe and gain useful experience in various disciplines such as canon[49] and civil law from the presence of these meetings. There was close association between the pre-university schools and the law courts, the teachers of the schools often working in the courts. This presence of lawyers in the town was a significant factor in the formation of Oxford university.[50] Oxford's central position in the country was an advantage to the town, giving easier access to both the north and the south, and thus playing a role in the location of the university. Its position on the Thames gave the town important communication links. Scholarship, like trade, is best done in association, so it is likely that by the mid twelfth century there was some sort of level of education that could attract such scholars as Theobald of Etampes[51] to Oxford.

However the most likely immediate cause for the development of education in Oxford was that in 1167 there was an exodus of English scholars from Paris.[52] This had

been the normal place for the English requiring such education. These scholars may have been expelled or left voluntarily. Indeed it is possible that they were recalled by Henry II, which may explain Oxford as their place of congregation. The exodus theory is supported by the nature of scholasticism at the time when such movements were common. The presence of lawyers in addition to scholars of other faculties in the exodus was to give education at Oxford the range of subjects that would make the development of a *studium generale* possible.

Another factor that may have had some bearing on the consolidation of the university was the politics of the time. War between France and England (1175-85) made it impossible for English students to travel to Paris, their usual destination. This must have encouraged them to attend the growing *studium* at Oxford, bolstering the numbers of students and therefore masters, and increasing the significance of the centre. Royal patronage played an important part in the continuing existence of the *studium*.[53]

The scholars may themselves have felt comfortable in Oxford which had weaker ecclesiastical ties than Paris. The university at Paris came under the direct eye and authority of the bishop of Paris and his Chancellor, and this was a hindrance to the corporate freedom of the *studium generale*. Oxford came within the see of Lincoln, a considerable distance away. The masters may have felt freer of the jurisdiction of the distant bishop. Indeed Oxford suffered less episcopal or papal interference than Paris.

> Whereas at Paris the motive force of development was the university's relations with ecclesiastical authority, at Oxford it lay in relations with town and monarchy. From first to last it owed its position to the king.[54]

This situation was to help Oxford's comparative independence from ecclesiastical control. It was to be an important difference for the development of thirteenth-century natural philosophy in the arts courses of the two universities. "Oxford - in the eyes of Christendom at least - was never so important and so enjoyed a much freer history in consequence."[55] It must also be noted that Oxford was not a capital, nor had the

university evolved from a cathedral school, and it was in a land more distant from papal writ. These facts are relevant to the comparative freedom of Oxford. This freedom is indirectly reflected in the nature of the bans, some papal, that were imposed on the university of Paris but not on the university of Oxford. The bans will be discussed in detail below.

By the first years of the thirteenth century a shadowy form of a guild-like institution of masters appears at Oxford, nominally to deal with matters like fair rents for members of the university. It was this body of masters that formed a group from which the university and its constitution were emerging.[56] The disruption of 1209, in which a townswoman was murdered and three scholars were hanged by the townsfolk, brought into question the rights and privileges of the masters at Oxford and it was the resolution of this dispute between town and gown that was to lead to the papal bulls that gave Oxford the official title of a *studium generale* and established it as such.[57] This apparent disaster for education at Oxford was not only to consolidate the *studium* but was also to be crucial in the formation of England's second university, Cambridge.[58] It was only after this dispersal and, in 1214, the return to studies, that Oxford finally had an official head of the *studium generale*. The first chancellor of the university, Geoffrey de Lucy, was an important figurehead for the corporation, reflecting the recognition of Oxford as a true *studium generale*.

These are among the reasons why a *studium generale* developed at Oxford. It grew on a basically Parisian model. Many of the first men to form the university had been taught or had taught in Paris. Oxford's constitutional structure differed little from Paris. Oxford, like many universities after it, copied Paris in many of its elements. Oxford continued to have a close relationship with its mother university. Individuals can often be seen to have studied and taught at both of the *studia*. Yet the teaching of natural philosophy differed significantly in the two arts faculties. This can be seen in university statutes that survive from the period. These are considered below. The teaching of natural philosophy in the two arts faculties is of central importance to this thesis.

The development of natural philosophy at Oxford and Paris

By the end of the thirteenth century natural philosophy had become a major part of the arts course of the two universities of Oxford and Paris. In reference to Oxford, Charles Burnett writes

> within barely two generations, Aristotelian natural science, from being almost completely unknown, became - as "philosophia naturalis" - a staple part of university education.[59]

From these two institutions teaching of natural philosophy spread to the many new universities that developed in the middle ages. The dissemination of such teaching from Paris is essential to this story. This teaching was canonised in the places of learning, and it was then studied for centuries until figures like Descartes and Spinoza undermined medieval learning.[60] The importance of Aristotelian natural philosophy is obvious for European medieval thought. It will be argued below that the *studium* at Oxford was important for the early development of this area of medieval knowledge.

With the arrival of rediscovered Aristotelian texts and their Arabic commentators medieval learning was to greatly change in content and direction. Aristotelian knowledge came to dominate the arts course mainly because "Aristotle and the other authorities of the arts faculty were valued because they were thought, in general, to put forward the best rational explanations of the problems they examined."[61] Natural philosophy became part of the canon for the arts course, and its further influence can begin to be seen in theological works. This is a measure of its canonisation. In the early thirteenth century there is little evidence for the use of Aristotle in the writings of the early theologians.[62] Callus points to William of Auxerre as the first theologian that can be seen to be using Aristotle between 1215 and 1220. Avi-Yonah traces the influence of natural philosophy on the interpretation of creation and cosmology.[63] This use of Aristotle in theology was more under way in the thirties. New physical works "began to exert a traceable influence on theology after *c.*1220".[64] By 1220-40 direct quotations from the *libri naturales*

appear in theological works, but with questionable understanding.[65] It will be explained below why natural philosophy had theological potential for the mendicant friars. This canonisation must be more closely examined, for the process was not a smooth one. There was resistance by some to this new learning and this is reflected in the study of natural philosophy at the two universities of Oxford and Paris.

Although Paris can be considered as Oxford's parent university, there were some significant differences in what was taught and what was not taught in the arts faculties of the two universities at the time when the new Aristotelian learning was being absorbed by the Latin intellectuals. Natural philosophy was to become canonical for the arts curricula at the two universities but at Paris later than at Oxford. This situation requires a closer look as it is important for Adam of Buckfield's significance in this area of teaching and for the canonisation of natural philosophy in a European context.

The Arts degree at Paris

The Parisian bans and statutes:

Natural philosophy was the part of the new learning which the church had some difficulty in accepting, unlike other new Aristotelian works. It was considered dangerous material and could lead to heretical thinking. It contained doctrines that were wholly incompatible with certain Christian doctrines. Parts of the works, for example the *De Anima*, contained doctrines concerned with the nature of the soul that conflicted with traditional church teachings. One important heretical doctrine contained in natural philosophy was the eternity of the world. This could not be reconciled with Christian tradition (i.e. the Creation). Because of the dangers associated with natural philosophy, the church authorities in and around Paris tried to apply constraints to the teaching of this subject. We have many reports of churchmen denouncing the scandalous heresies taught within the university.[66] On many occasions the church tried to put pressure to bear on the masters and universities involved in this teaching.[67] This came in the form of pressure on individual masters who could be brought to trial for heresy; or in the more generally

applied prohibitions to the actual university. The prohibitions on natural philosophy that occurred in Paris in the thirteenth century can tell us much about opposition to and acceptance of Aristotle's natural works.

As early as 1210 steps were taken to control what was being taught at Paris university. The suspicions that many theologians maintained against this unexplored and thus potentially dangerous new knowledge were expressed in a decree prohibiting the reading of Aristotelian natural philosophy. The Condemnation of 1210, the decree of the bishops of Sens, Paris, etc. against the heretics and the natural philosophy of Aristotle reads:

> *Corpus magistri Amaurici extrahatur a cimeterio et projiciatur in terram non benedictam, et idem excommunicetur per omnes ecclesias totius provincie ..... Quaternuli magistri David de Dinant infra natale episcopo Parisiensi afferantur et comburantur, nec libri Aristotelis de naturali philosophia nec commenta legantur Parisiis publice vel secreto, et hoc sub pena excommunicationis inhibemus. Apud quem inveniantur quaternuli magistri David a natali Domini in antea pro haeretico habeatur.*[68]

That is, the books of Aristotle's natural philosophy and, importantly, also the books of his commentators, as well as the heretical writings of Master David, were not to be read, that is, studied, at Paris publicly or privately. This was under pain of excommunication. The body of Master Amauricus was exhumed from the cemetery and thrown on to unhallowed ground for heresy. These were serious threats to and actions against God-fearing medieval Christians. Thorndike translates the Latin of the later part of the passage as follows:

> Neither the books of Aristotle on natural philosophy nor their commentaries are to be read at Paris in public or in secret, this we forbid under the penalty of excommunication. He in whose possession the writings of David of Dinant are

found after the Nativity shall be considered a heretic.[69]

This gives us evidence of three things; firstly that Aristotle's natural philosophy was being taught in some form at Paris before 1210, secondly that David of Dinant was known for his natural-philosophical conclusions, and thirdly that the church distrusted natural philosophy enough to punish its teaching severely.

There is evidence from Oxford, too, of the existence of the teaching of Aristotelian natural philosophy, like John Blund's teaching on the *libri naturales* in the first years of the thirteenth century.[70] Men associated with early natural philosophy in Oxford will be discussed later in this chapter.

It would seem, then, that Aristotelian natural philosophy was known well enough to be banned, even if it was not fully understood. If, before the ban of 1210, the *libri naturales* were known at Oxford, it would be safe to assume they would be known at Paris considering the relationship between the two universities at the time. The question has been asked what effects did this ban have: "Prohibitions of this kind have, however, an inherent tendency to be ineffective, or at least to have results different from those intended by their originators."[71] This may be so, yet this ban was serious in nature, for it was no small thing to be excommunicated. Paris university was also under the eye and control of the bishop of Paris and scholars disregarding the ban could be easily exposed. It seems likely, then, that this ban must have hindered the teaching of natural philosophy. There is no reason, however, why this ban should have stopped an interest in natural philosophy, as the quotation from Piltz suggests. The ban may have encouraged this interest, but this does *not* mean the teaching and thus development of the new Aristotelian natural philosophy was unhindered at Paris. I think this ban must have been a hindrance.

Moreover, the cardinal legate Robert de Courçon, five years later, in 1215, was to produce further legislation concerning study of the arts curriculum at Paris. This is the next surviving documentation relevant to the teaching of natural philosophy to come from Paris. In this statute we have a description of the arts degree. The study of the 'old'

and 'new' dialectic, that is the *Organon* of Aristotle, was taught in the 'ordinary' lectures, showing emphasis in this area; and this reflects the importance of logic in the arts at the end of the twelfth and beginning of the thirteenth centuries. The two Priscian grammar books were also taught in this way. On festival days, which were extremely numerous, there were lectures on the philosophers, on rhetoric, on the subjects of the Quadrivium (arithmetic, geometry, music and astronomy) and Aristotle's ethics (the first three books of the Nicomachean ethics). Ethics however does not seem to have been a compulsory area of study at this time. The Latin reads:

> *Et quod legant libros Aristotelis de dialectica tam veteri quam nova in scolis ordinarie et non ad cursum. Legant etiam in scolis ordinarie duos Priscanos vel alterum ad minus. Non legant in festivis diebus nisi philosophos et rhetoricas, et quadruvialia et barbarismum, et ethicam, si placet, et quartum topichorum.*[72]

> And that they read Aristotle's books on Dialectic, both old and new, ordinarily [i.e. in ordinary lectures] but not cursorily [i.e. in cursory lectures] in the schools. They should also read cursorily in the schools the two Priscan texts or at least one. They should only read on festival days the Philosophers, the Rhetorics, the Quadruvialia, the Barbarismus and the Ethics, and if it is pleasing the fourth book of the topics.[73]

Natural philosophy receives a similar ban to that of 1210. *Non legantur libri Aristotelis methafisica et de naturali philosophia, nec summae de eisdem, aut de doctrina magistri David de Dinant, aut Almarci haeretici, aut Mauricii Hispani.*[74] Again the natural works *and* the commentaries and works associated with them are banned. Thorndike translates as follows:

> They shall not lecture on the books of Aristotle on metaphysics and natural

> philosophy or on summaries of them or concerning the doctrine of master David of Dinant or the heretic Amaury or Mauritius of Spain.[75]

Does this imply that they had been caught transgressing the prohibition of 1210 and returning to Aristotle? David is mentioned in both documents, his conclusions may have had theological and philosophical implications. Does this second ban suggest the first ban was ignored? I think not. It is more likely to be a reiteration of the first ban to back up its authority by specifying more precisely the works, commentaries and the heretics who were not to be read. Thus, Aristotle's natural philosophy and metaphysics probably formed part of the arts course before 1210 but not afterwards.

This has led to questions of what *was* taught at Paris. Some scholars have suggested that the gap in the curriculum that may have been caused by the prohibitions was filled with extra logic and ethics or physical knowledge which was inoffensive to Christianity:

> but is it not impossible that some of the gaps could have been filled by increased independent disputations in natural philosophy *(physica)* which did not embrace controversial and delicate subjects? This seems to be a more logical and natural procedure than cutting *physica* out of the curriculum altogether.[76]

Brian Lawn claims that texts on the *physica* may have been studied less controversially than other texts from within the *libri naturales.* This view may go some way to explain the recurrent bans on Aristotle's natural philosophy, for if this was indeed the case then it would be easier for controversial texts to slip back into teaching rather than if the bans had total effect.

Marenbon proposes that there was very scanty understanding and knowledge of Aristotle before 1215 in Paris and Oxford. The bans of 1210 and 1215 do not necessarily mean that metaphysics and natural philosophy were being taught, but that they were prohibited to prevent them being taught (because they were not understood yet).[77] This

does not seem quite right, for it would seem more likely that they were taught to some extent while not being understood fully, since we have evidence of pre-ban teaching in Oxford.

The next ban on natural philosophy by Gregory IX came in 1228. However in this legislation Gregory alludes to the story of Egyptian gold; *Magistris in theologia Parisius regentibus. Ab Egyptiis argentea vasa et aurea sic accipienda sunt mutuo, quod spoliatis eisdem ditentur Ebrei... .*[78] It would seem however that the church itself had started to take an interest in the new learning. In this letter the Pope compares the prohibited works to the Egyptian gold stolen by the Hebrews before leaving Egypt. He means that these works are of some use to us but must be used selectively and in the knowledge that they are written by a pagan.

Thus, the story of the Israelites taking the Egyptian gold as a means to an end refers to the new natural philosophy which was considered useful yet not perfectly acceptable from the Christian point of view. This attitude is clearer in the next two relevant legislative measures by Pope Gregory IX concerning natural philosophy discussed below. It is important to note that the legislation of 1228 is addressed to the regent masters of theology rather than to those in arts.

This ban of 1228 probably prompted the university of Toulouse to make this advertisement in 1229:

> *Libros naturales, qui fuerant Parisius prohibiti, poterunt illic audire qui volunt nature sinum medullitus perscrutari.*[79]
>
> Those who wish to scrutinise the bosom of nature to the inmost can hear here the books of Aristotle which were forbidden at Paris.[80]

This suggests that the teaching of natural philosophy at Paris was still under prohibition or had suffered because of the bans. The reason Toulouse was allowed to teach natural philosophy had much to do with the fact that it was the centre of the Albigensian heresy.

The Dominicans used natural philosophy as a tool of argument in their fight against this heresy. Toulouse was in the heart of enemy territory.

It is important to note that Aristotle's other works, such as the very important *Logica Nova* corpus, are not prohibited. They held no difficulty for church doctrine. Indeed the second legislation confirms this as good material for study.

On 13 April 1231 was issued another document that includes regulation on the natural philosophy of Aristotle. In this papal regulation for the university of Paris we again find reference to Aristotle's natural works and the church authorities' distrust of them:

> *et libris illis naturalibus, qui Concilio provinciali ex certa causa prohibiti fuere, Parisius non utantur, quousque examinati fuerint ab omni errorum suspitione purgati.*[81]

> and those books on nature which were prohibited in provincial council [1210] for certain cause they shall not use at Paris until these shall have been examined and purged from all suspicion of errors.[82]

Again the original ban of 1210 is reiterated. Here we see a changing attitude towards the forbidden texts; earlier they were simply banned outright. Does this reflect an increased demand for the teaching of the texts? I feel it might, considering that neither Oxford nor Toulouse had bans on natural philosophy and Paris may have been losing students to them. We have already seen that Toulouse advertised in competition with Paris.

This weakening of the stance of the traditional church may be further seen in a document from 23 April 1231 from Pope Gregory IX. As an introduction to this passage Thorndike writes

> In the foregoing regulations of April 13 the pope provided that the books of Aristotle on nature which had been prohibited in 1210 should not be used until

> examined and purged of errors. In the present letter he takes steps in that direction. Meanwhile in a letter of April 20 he had ordered the abbot of St. Victor and the prior of the Dominicans at Paris to absolve those masters and scholars who had violated that prohibition.[83]

Pope Gregory's letter of the 23 April:

> *Ceterum cum sicut intelleximus libri naturalium, qui Parisius in Concilio provinciali fuere prohibiti, quedam utilia et inutilia continere dicantur, ne utile per inutile vitietur, discretioni vestre, de qua plenam in Domino fiduciam obtinemus, per apostolica scripta sub obtestatione divini judicii firmiter precipiendo mandamus quatinus libros ipsos examinantes sicut convenit subtiliter et prudenter, que ibi erronea seu scandali vel offendiculi legentibus inveneritis illativa penitus resecetis ut que sunt suspecta remotis incunctanter ac inoffense in reliquis studeatur.*[84]

> But since, as we have learned, the books on nature which were prohibited at Paris in provincial council are said to contain both useful and useless matter, lest the useful be vitiated by the useless, we command your discretion, in which we have full faith in the Lord, firmly bidding by apostolic writings under solemn adjuration of divine judgement, that, examining the same books as is convenient subtly and prudently, you entirely exclude what you shall find there erroneous or likely to give scandal or offence to readers, so that, what are suspect being removed, and the rest may be studied without delay and without offence.[85]

Why was this necessary? Had natural philosophy been taught against the prohibition, making further legislation necessary? It seems that some masters and scholars had chosen to ignore the previous bans, unless these are the masters who appear in the earlier bans. Pope Gregory's letter 20 April:

Abbati Sancti Victoris et.. priori fratrum Predicatorum Parisien cum salutem animarum querere teneamur, occasiones perditionis cupientes quantum Dominus permiserit a movere, discretioni vestre presentium auctoritate mandamus, quatinus magistros et scolares qui in sententiam latam Parisius in provinciali Concilio seu in sententiam bone R. tituli Sancti Stephani in Celio Monte presbyteri cardinalis ocasione librorum naturalium, qui in eodem Concilio fuereo prohibiti, inciderunt. Juxta formam ecclesie absolvatis, et injuncta eis propter hoc penitentia competenti super irregularitatibus huiusmodi occasione contractis provide dispensetis.[86]

Since with the Abbot of Saint Victor and the Prior of the Brothers Preacher of Paris, we are held to seek the health of souls, seeking reasons for perdition as far as it was permitted by the Lord to remove [them] we order you with the authority of these present [words] to exercise your discretion about the masters and scholars who have fallen under the broad sentence of Paris in the Provincial Council or under the sentence of the good R.? of the title of Saint Stephen, the presbyter cardinal in Celio Monte, in the matter of the natural books, which were prohibited in the same council. You should absolve them according to the form of the church, and for this reason you should arrange a suitable penance for them because of the irregularities contracted on such an occasion.[87]

These bans give some evidence of mistrust and opposition to Aristotle's natural philosophy but also of a weakening of the church's opposition. However, many secular scholars and indeed church scholars were extremely interested in natural philosophy. There must have been enough interest to overcome this opposition. Some Aristotelian philosophical works, not relating to logic, seem to have been at least briefly considered in Parisian education. An anonymous guide to the arts course, which was written between 1220 and 1245, was discovered by Martin Grabmann.[88] The guide mentions the physics and metaphysics, both officially banned. The *De causis* also appears, but none of them is

an examination text. Steenberghen says of the document that it showed very little natural philosophy was involved.[89] "This shows indisputably that they were not officially taught in the arts faculty at the time, but that they were in circulation, if only clandestinely".[90] Toulouse, previously unaffected by the bans, was now to come under the same censorship at Paris, "on 22 September 1245 Pope Innocent IV extended the prohibition against teaching the *libri naturales* until they were corrected, using the very words of Gregory IX."[91]

However the bans seem to have been progressively ignored in the forties; the tide was changing. In 1252 a statute was promulgated by the English-German nation at Paris university requiring study of *De anima*, a very important Aristotelian work. *Item librum de anima semel audiverit vel sit in audiendo sicut predictum est.*[92] 'He shall have also heard the book on the soul once or as stated previously.' Was this because of influence of natural philosophy at Oxford?

In 1255 there is another statute concerning natural philosophy at Paris that shows the increase in the canonisation and dominance of Aristotle's works in the intervening years. This statute, promulgated by the arts faculty of Paris university, places natural philosophy firmly in the arts curriculum specifying the time to be spent on each text. This legislation is seen as one of the most important in the canonisation of Aristotelian natural philosophy. Once natural philosophy became accepted as part of the curriculum of the arts course at Paris it was then destined to spread throughout Europe. After 1255 Aristotelian texts, and just as importantly the Aristotelian method, came to form a dominant part of the arts curriculum in the European world of learning. This document, the statute of the English nation, is heavily in favour of Aristotle, I think reflecting the interest given to controversial works at Oxford. The books banned in 1215 and 1231 are now found forming part of the ordinary lectures showing the emphasis given to them. These books were accompanied by many more works of Aristotle but only two more works by other authors, which is significant: another book of Priscian (the canon for grammar) and a commentary on Aristotle's *Categories*. Most importantly this legislation emphasises Aristotle's natural philosophy as part of the arts curriculum at Paris:

> *Physicam Aristotelis, metaphysicam et librum de animalibus in festo sancti Johannis Baptiste, librum celi et mundi, librum primum metheorum cum quarto in Ascensione; librum de anima, si cum naturalibus legatur, in festo Ascensionis, si autem cum logicalibus, in festo Annunciationis beate Virginis; librum de generatione in cathedra sancti Petri. librum de causis in septem septimanis; librum de sensu et sensato in sex septimanis; librum de sompno et vigilia in quinque septimanis; librum de memoria et reminiscentia in duobus septimanis; librum de differentia spiritus et anime in duobus septimanis; librum de morte et vite in una septimana.*[93]

> The *physics* of Aristotle, *Metaphysics*, and *De animalibus* on the feast of St.John the Baptist; *De celo et mundo*, first book of *Meteorology* with the fourth on Ascension day; *De anima*, if read with the books on nature, on the feast of the Annunciation of the blessed Virgin; *De generatione* on the feast of the Chair of St.Peter; *De causis* in seven weeks; *De sensu et sensato* in six weeks; *De sompno et vigilia* in five weeks; *De plantis* in five weeks; *De memoria et reminiscentia* in two weeks; *De differentia spiritus et animae* in two weeks; *De morte et vita* in one week.[94]

Here we have fourteen books of Aristotelian natural philosophy as required teaching by statute. This is what basically comprised the texts of the *Corpus vetustius*. The arts course had now become Aristotelian. Natural philosophy is now part of the canon rather than being avoided. However this happened at Paris later than Oxford, and this had consequences:

> it is important to recognise that there were three prohibitions at Paris by 1231 of the works of Aristotle and his Arabian commentators on natural science and metaphysics and that these must be accounted partly responsible for the neglect

> of these subjects in favour of logic and ethics. The theological conservatism of the cathedral authorities at Paris held back the development of science and metaphysics there in striking contrast to Oxford, where Grosseteste fostered them; hence the different relations of Paris and Oxford to ecclesiastical authority had also important intellectual repercussions.[95]

In the period after Adam of Buckfield had helped to canonise the Aristotelian physical works there is further evidence for the durability of that canon. In 1277 there was another prohibition enforced on the teaching of arts. This ban was different in nature to the previous bans; it condemns 219 heretical propositions by certain masters (importantly Boetius of Dacia and Siger of Brabant) or certain unchristian doctrines contained in natural philosophy; these are described as *quosdam manifestos et execrabiles errores, immo potius vanitates et insanias falsas in rotulo seu cedulis.*[96] It is these 'false insanities' that are banned, *not* the books of natural philosophy themselves or the teaching of the books. No attempt is made to ban Aristotelian texts. It would seem the attitude to natural philosophy had changed: "The prohibition of the teaching of the theories of Aristotle and his Arab commentators seems to have been ignored after Gregory IX's death."[97]

The continuing domination, despite opposition, of Aristotelianism especially in the arts is evident from the university statutes. By 1366, as we know from the reformed statutes of Paris, grammar, Aristotelian logic and psychology (i.e. *De anima*[98] and the books related to it such as the *Parva Naturalia*) and the *Organon* were required study for the licence to teach as a bachelor. To gain a master's degree further natural philosophy, metaphysics, mathematics and ethics had to be studied. The canonisation of Aristotle is again clear. The Parisian statute reads:

> *Item quod nullus admittatur ad licentiam in dicta facultate, nec in examine Beate Marie, nec in examine Sancte Genovefe nisi ultra predictos libros audiverit Parisius vel in alio studio generali librum Physicorum, de*

Generatione et Corruptione, de Celo et Mundo, Parva naturalia, videlicet libros de Sensu et Sensato, de Sompno et Vigilia, de Memoria et Reminiscentia, de Longitudine et Brevitate vite, librum Metaphysice, vel quod actu audiat eundem, et quod aliquos libros mathematicos audiverit.[99]

Moreover, [it is decreed] that no one shall be admitted to the licence in the said faculty, nor to an examination at St Mary's or St Genevieve unless, besides the books mentioned before, he has heard in Paris or at another *studium generale*, the books on Physics, Generation and Corruption, the Heavens and the Earth, the *Parva naturalia*: that is, on Sense and the Sensed, on Memory and Reminiscence, on Longness and Shortness of Life; [he should have heard] the book on the Metaphysics or be currently hearing it, and must have heard several mathematical books.[100]

More statutes in 1452 show that the situation had changed little, reflecting the long lasting position of Aristotelianism as the canon for the arts. We know that Aristotelian politics, economics and rhetoric were also studied in the arts but evidence for them does not appear in the documents mentioned.

So the story at Paris is one of initial resistance to, but final triumph of, Aristotelianism in the arts faculty. As said above, Oxford had played its part in this canonisation of Aristotelianism in Paris.

The Arts Degree at Oxford

Lewry writes "in the second half of the thirteenth century the trivium was less honoured at Oxford than the three philosophies."[101] This suggests a rise in the importance of natural philosophy. Does it also reflect the changing values in education? The relegation of the trivium might reflect the view that it was just a vehicle to enable the more worthy study of the philosophies. The truth of the matter was that the philosophies

opened up new fields in possible knowledge, and a method for reaping the harvest. The philosophies were more *interesting.*

The bans of the first half of the thirteenth century were local bans concerning Paris alone. Natural philosophy was certainly taught at Oxford, at this time suffering no such legislation. Indeed there seems to have been much enthusiasm for this area of knowledge from when it became first available.

> Several facts might lead us to expect that Aristotelian studies would find an extremely favourable ground in the University of Oxford. Enthusiasm had been shown in England for the translations of Aristotle and Arabian philosophers, astronomers, and naturalists. Englishmen had taken a prominent share in these translations and their popularizations. A very close connection was maintained between Oxford and Paris. Complete freedom and ample facilities were enjoyed in Oxford for the pursuit of the new learning.[102]

Oxford was known for its teaching of natural philosophy from the beginning of the century:

> The *libri naturales* were not condemned at Oxford, as they were at Paris from 1210 onwards; this we may attribute in large measure to the influence of the chancellor-turned-bishop, whose continuing interest in the university, for which as its local ordinary he was responsible until his death in 1253, assured the harmonious and tranquil growth of studies there, and whose overt patronage of Aristotelian scholarship and learning guaranteed their sane and uninterrupted development until a much later period.[103]

This man, Robert Grosseteste, was a key figure in the introduction and establishment of Aristotelian philosophy in Oxford, being "largely instrumental in introducing the new Aristotle to the Oxford schools."[104] Although Rashdall wrote this a

long time ago this is still the accepted opinion.[105] Even though Grosseteste himself became interested in the *libri naturales* in later life, early traces of the new works can be seen in his writings.[106]

This early sympathy with Aristotle leads to a strong Aristotelian tradition at Oxford. McEvoy says of Grosseteste:

> And it is clear that young masters like Adam of Buckfield were lecturing and commenting on the whole known Aristotelian corpus of Aristotle a decade or more before the works in question were finally put on the arts course at Paris in 1255, one of the crucial dates in the history of Aristotle's influence in the West. That it was Oxford and not Paris which took the lead in this respect is largely due to the favour which Aristotelian studies found with Grosseteste.[107]

Grosseteste was Bishop of Lincoln until 1253, and Oxford was in his diocese. It was fortunate for the study of natural philosophy at Oxford to have such an understanding ecclesiastic.

This Oxford tradition or enthusiasm for natural philosophy is linked to names of masters like Roger of Hereford, Daniel Morley, Alexander Nequam and Alfred of Shareshill at the end of the twelfth century.[108] These people will be dealt with more fully later in the chapter. Indeed Daniel Morley seems to have been involved in the actual distribution of this new knowledge:

> Daniel of Morley, dissatisfied with the studies at Paris, hastened to Toledo, where Arabic learning was flourishing, to sit at the feet of the wisest philosophers of the world,..., among whom was undoubtedly Gerard of Cremona whose faithful disciple he became. On his return to England, loaded with valuable books, he wrote...a *philosophia*, in which he expounds the newly learnt theories.[109]

So the new Aristotle seems to have made an appearance in England at the end of the twelfth century and beginning of the thirteenth. We know of a number of masters interested in natural philosophy, for example Alexander Nequam, "the theologian Aristotelian enthusiast."[110] Nequam, who taught theology at Oxford around 1190, was interested in the power of the soul and used an edition of the *De Anima* by Avicenna. John Blund lectured on the *libri naturales* between 1207 and 1209 at Oxford and at Paris, producing important works such as *Tractatus De Anima,*[111] which was produced before John went on to study theology at Paris.[112] With such individuals contributing to natural philosophy, the situation at Oxford was ripe to be the focus

> for those areas of Aristotelian science and philosophy which were prohibited at the University of Paris in 1210 and 1215, and which were not taught openly at Paris until the 1230s. The ecclesiastical ban on Aristotle's physical and metaphysical works applied only to Paris, and this enabled Oxford to forge ahead in these invigorating intellectual spheres.[113]

The result was that

> Oxford was never to measure up to Paris as a centre of theological studies but in philosophy it was to choose its own paths and was to exercise a major influence on the history of ideas.[114]

Surviving statutes concerning what was taught and required learning for the arts faculty in Oxford are less detailed and of a later date than for Paris. There are however some documents attesting to the teaching there. A document of 1267 gives the form of admission for determining bachelors:

> *tres etiam libros naturales, scilicet librum "Phyiscorum" librum "De anima" libri De generatione et corruptione jurent se audivisse... Debent etiam in*

audiendo majorem moram fecisse quam si in sophismatibus publice responderunt; si autem fuerint aliqui, qui prius pro se non determinaverunt et pro aliis voluerint determinare, jurare tenentur quod omnes libros praenominatos modo praedicto audierint, insuper et Priscani "Magnum" semel, in suo tempore commode poterant audivisse; tres etiam libros "Meteororum" omni modo jurent se audivisse.[115]

They shall swear also that they have heard also three natural books, that is, the Physics, on the Soul and on Generation and Corruption. In listening they must spend more time than they would spend in responding publicly to sophism-disputations. If there should be some who had previously not determined for themselves and had wished to determine for others, they must swear that they have heard all the books named above in the above-mentioned manner, and moreover, they should be able to hear the big Priscian once in some convenient time of their own; and they must swear that they have heard three books of the Meteorology in all ways.[116]

As Callus states:

It is, therefore, beyond question that by the middle of the thirteenth century Aristotelian learning took full possession of Oxford, both in the Faculty of Arts and in the Faculty of Theology.[117]

Later statutes tell us of the continuing canon.

At Oxford the statutes of 1340 decreed that before inception all bachelors were obliged to lecture *cursorie* on at least two logical books, one from the old logic and one from the new, or else both from the new plus one of the *libri naturales*, namely either *De caelo et mundo* or *De anima* or *Metheora* or *De generatione*

> *et corruptione* or *De sensu et sensato* together with *De memoria et reminiscentia* and *De somno et vigilia* or *De motu animalium* together with any two books of the *Parva naturalia*.[118]

Considering the bans on natural philosophy at Paris and the clear examination of natural philosophy at Oxford it would seem reasonable to think that natural philosophy would have developed further at Oxford. Natural philosophy was being lectured upon, disputations were being held about it and commentaries were being written. In the middle ages this was how questions were posed and answers were sought after; this is how knowledge developed. This was happening freely at Oxford, and even if the bans were not totally effective at Paris they must have hindered development to some extent. Indeed, if this is the case it is backed up by the appearance of the writings of such masters as Adam of Buckfield in Paris[119] after the statute in 1255. It would seem, then, that when these subjects became official study at Paris they had to look to Oxford and possibly elsewhere to gain up-to-date Aristotelian teaching and commentaries; "it seems to be well established that lectures on the *libri naturales* were started at Paris by English masters, Roger Bacon and Robert Kilwardby."[120] Indeed, Adam's commentaries are found widely over Europe, suggesting that they probably were distributed by those attending Paris university. The very fact that Adam's work has been so widespread can hardly be an accident. It seems certain that his texts were of interest. Important for this thesis is the superior development of natural philosophy in Oxford over Paris. The thesis examines Adam of Buckfield's place in this important process.

Natural philosophy elsewhere

Some centres of education maintained parts of the old *trivium* and *quadrivium* and rhetoric, but "all in all the story of the arts course during these centuries was largely the story of the spread of, and overwhelming interest in, the works of Aristotle."[121] These works of Aristotle were to become the canon of texts for the degree of arts in these centuries in almost all the medieval universities. In the early years Oxford was

alone in its study of natural philosophy.

The arrival of the mendicant friars at Oxford and at other universities was to greatly increase the interest in nature at the universities. The Dominicans arrived in Oxford in 1221, the Franciscans in 1224, yet neither opened a school until 1229-30.[122] Presumably they took part in the university arts faculty before opening their own schools. However the important point is that these friars, who were interested in natural philosophy, were present at the university of Oxford when the development of natural philosophy was well under way, and they were an important factor in shaping it. From here Oxfordian natural philosophy had a means of distribution through the international organisations of the Dominicans and Franciscans. Teaching in natural philosophy and the use of *disputatio* developed in Italy as well as in England, but this was at a later date, after the friars had arrived bringing their natural philosophy with them.[123]

> When and how scholars at Bologna first participated in the great intellectual revolution of the thirteenth century, namely the reception of the *libri naturales* (and *morales*) of Aristotle as basic textbooks in the schools, remains largely unknown. Whether or not the Emperor Frederick II did, as claimed, send works of Aristotle to the scholars of Bologna around 1230, some natural philosophy was no doubt early studied in connection with medicine. It is probable, however, that the *studia* of the various orders of friars played an important part in introducing the "new Aristotle" and scholastic method to the schools of Bologna. The first such *studium* to be established was that of the Dominicans, which was founded in 1218 and declared in 1248 to be one of the six *studia generalia*.[124]

The Franciscans arrived in about 1221. Members of these Orders were of great importance in the development and distribution of natural philosophy in the thirteenth century.

> The Orders of friars originated at the same period and in the same areas as the

> first universities. Scholars have long been aware that the individual members of the Orders founded by Dominic and Francis - the Dominicans and Franciscans - played an important role in the study of nature in thirteenth century Europe.[125]

The friars studied nature for their own particular thirteenth-century Christian reasons, which relate to the specific aims and purposes of their two Orders. The Dominicans found natural philosophy a common ground for argument and a keen weapon in their fight against heresy, particularly the Cathar heresy, this being their *raison d'être*: whereas for the Franciscans the contemplation or study of nature was a way of contemplating and so uniting with the divine.

> The approaches to natural philosophy that the Orders of friars created were also responses to the problems of wealth, power and belief in that society, and cannot be properly understood outside that context that gave rise to them. Money makes towns, and then towns make heresy.[126]

The orders were international organisations as was their education. They taught natural philosophy in their own *studia* and participated in the early universities. The friars created *studia* within their own orders in which they taught their members natural philosophy and other subjects, and they also entered the *studia* created by the secular masters, which they saw as a rival form of learning which needed to be controlled.[127]

The secular masters of the universities must not be left out of the picture. They studied the same texts, admittedly for different reasons (and because of this reached different conclusions), and they contributed their ideas:

> The Franciscans and Dominicans continued to practise their natural philosophy through the thirteenth century as long as they thought there was need for spiritual and learned guidance. Meanwhile, the regent masters of the universities, who had been familiar with the sources of the friars' philosophy before the friars came

> into existence, also constructed a natural philosophy. This proved remarkably long lived and survived inside the universities down to the middle of the seventeenth century. While the natural philosophies of the two Orders of friars never came close to each other, the secular masters and their students handled a constructed natural philosophy that contained elements of both. The story of the masters' natural philosophy is one for another book and we can note here only that, like the philosophy of the friars, it was called into existence for specific historical reasons.[128]

As we have seen in France an advertisement (1229) for the university of Toulouse invites students to attend their university instead of Paris on account of their teaching of the works on natural philosophy prohibited at Paris. The reasons for the study of natural philosophy at Toulouse are again intertwined with that of the Dominican order. Natural philosophy, as said above, was the weapon with which the order of Preachers fought heresy. Toulouse was a central location in the Cathar heresy and so was a prime location for the Dominicans in their fight against heresy.[129]

This invitation is further evidence that natural philosophy could not be effectively studied at Paris at this time. We can see here as elsewhere the establishment of Aristotelian studies. Where did the university of Toulouse get its natural philosophy? Teaching implies properly trained philosophers and they must almost certainly have come from Oxford since at this time natural philosophy was not sufficiently developed elsewhere. Toulouse, as said above, did however receive a prohibition in 1245.

From the twelfth century scholars at Salerno were to some extent familiar with the natural philosophy.

> The association of medicine with natural philosophy was also emphasised at Salerno; Salernitian masters were among the earliest Latin writers to reflect some knowledge of Aristotle's writings on physical science, and the well-known "Salernitian questions" mingled medical and general scientific topics.[130]

Although Salerno flourished as a medical centre before the universities, Salerno and neighbouring Monte Cassino were important in the transmission of natural philosophy to the West. This Salernitan natural philosophy spread to the Bologna.

> Taddeo himself appears to have been chiefly responsible for the introduction to the public *studium* of Bologna not only a curriculum of Hippocratic and Galenic studies already developed at Salerno and certain schools in northern Europe, but also of Aristotelian philosophy and natural science. He and his pupils used this material to carry on the task, begun in the West only a generation before Taddeo began to teach in the 1260s, of analysing the difference between Aristotle's mammalian biology with Galen's physiology.[131]

Siraisi points to some philosophical teaching at Bologna before Taddeo's generation, but notes, however that "The earliest philosophical *works* associated with Bologna appears to be Taddeo's own translation of the *Nichomachean Ethics*."[132]

So it appears that before Taddeo there was limited natural philosophy at Bologna, and at Salerno it was primarily concerned with medicine. It must be emphasised that for many years before Taddeo natural philosophy had been studied at Oxford. It would seem that Italian natural philosophy was not so developed as northern Europe in the mid thirteenth century. Indeed it was not until the late thirteenth and early fourteenth century that there were official teachers of natural philosophy at Bologna.[133] Whereas Masters of Arts had officially been lecturing at Paris and especially Oxford long before this time.

Both Oxford and Cambridge made a "prominent contribution to the early phase of European university development".[134] For Cambridge "the dominance of Aristotle is clear in both university and college statute".[135] Cambridge generally followed its parent university Oxford in its teaching. The arts curriculum included natural philosophy and logic as they did at Oxford.[136] Natural philosophy was of course an integral part of this

curriculum. Although early evidence is scarcer for Cambridge the situation was to continue there as it did in Oxford:

> Cambridge philosophy between 1480 and 1620 remained primarily Aristotelian. The introduction of new translations, humanist approaches, Ramist attacks, newer commentaries, and Platonic lectures, made the [illegible], more eclectic, but it almost always remained in the peripatetic tradition.[137]

Masters at Oxford

As mentioned above there were many great minds interested in natural philosophy with connections with Oxford university in the late twelfth and early thirteenth centuries. Some scholars associated with Oxford were responsible for important translations of and early commentaries on Graeco-Arabic knowledge. Daniel of Morley, mentioned above, seems to have been the first to *read* Aristotle's natural works in Britain. He shared his interest with John of Oxford, Bishop of Norwich, possibly in Oxford.[138]

Alfred of Shareshill was an important early Aristotelian commentator especially for natural philosophy,[139] writing in or before the first decade of the thirteenth century. Adam of Buckfield is known to cite him.[140] Alfred translated the *De plantis* and wrote the first known commentary upon that text. Many quotations are found from Alfred's commentaries in the glosses in the *Corpus vetustius* manuscripts, upon the *De plantis* and the Meteorology.[141] This reflects Alfred's importance as a commentator. I have seen these whilst searching for fragments of Adam's commentaries in glosses from the same manuscripts. Indeed in the manuscripts examined he appears as a prominent source for marginal glosses in the *Corpus vetustius* manuscripts that contain the text of *De plantis*. His commentary on the Meteorology was popular as well. Burnett makes the point that

> If Alfred can be regarded as the first commentator on Aristotle's natural science, them Adam [Buckfield] is his successor, providing a new set of commentaries for

> a new generation of students at Oxford. Moreover, he may be the earliest scholar to provide commentaries for the whole of the *Corpus vetustius*. His works therefore, presuppose the existence of the *Corpus vetustius* in Oxford in the late 1230s and early 1240s.[142]

Alfred's commentaries imply teaching, and were used in Oxford later. It is possible that he composed them in Oxford.

Roger of Hereford, a friend of Alfred (his translation of *De plantis* is dedicated to him), was looking for and found Arabic material and was part of this circle of men interested in natural philosophy. Alexander Nequam,[143] the theologian Aristotelian enthusiast,[144] showed interest in natural knowledge and reports the teaching of Aristotle in early Oxford.[145] St Edmund of Abingdon and John Blund[146] (both sometime Archbishop of Canterbury) are said to have been the earliest lecturers on the *libri naturales* at Oxford.[147] John gained the licence for teaching arts around 1205-6[148] and consequently lectured (1207-9) on the *libri naturales*.[149]

According to Callus, the date of John of London's teaching coincides with the appearance of new learning at Paris. He taught in Oxford before the 1209 recession.[150]

We can see that there was a group of scholars, some with firm links to Oxford, some with more circumstantial links, with an interest in natural philosophy at the end of the twelfth and beginning of the thirteenth centuries.[151] This formed an important intellectual background for Adam of Buckfield. Part of the group was the mendicant friars whom we have already met. When they arrived in the 1220's they were to have great impact on the university of Oxford. The members of the orders included great scholars such as Richard Fishacre,[152] who had wide knowledge of new learning.[153] At Paris and Oxford the Franciscans and the Dominicans came to dominate the theological faculties of both universities. They produced some of the finest minds of the middle ages, for example Aquinas, Albertus Magnus and Bonaventure. Grosseteste, a friend of the Franciscans,[154] had a great interest in natural philosophy, and made early translations of already known texts direct from the Greek in order to obtain a better text.[155]

The generations of scholars after these early Aristotelians with Oxford connections had much Aristotelian learning to draw upon. This is where Adam of Buckfield appears in the picture. Adam was an associate of Adam Marsh[156] who was an associate of Grosseteste,[157] both of whom had interest in natural philosophy. Such scholars as R. de Staningtona, whose commentary on the meteors[158] contains quotations from Alfred of Shareshill and Thomas of York, are contemporary with Adam of Buckfield. Thomas, a friend of Adam Marsh and a Franciscan,[159] was important in interpreting Aristotle, and used Costa ben Luca, upon whose work *De differentia spiritus et anime* Adam of Buckfield wrote a commentary.[160]

These masters are crucial to the development of natural philosophy at Oxford which is central to this thesis. Adam's contemporaries seem to have shared their predecessors' interest in natural philosophy.

The associate of the Franciscans, Roger Bacon, one of the most famous of Englishmen interested in natural philosophy towards the end of the thirteenth century, cites Alfred of Shareshill and Adam of Buckfield. Here we see two generations of commentators being used. This is especially interesting as both commentators appear in marginal glosses on the same text in certain manuscripts, e.g. **British Library, Royal, 12 G III**. Richard of Middleton, a later writer than Adam,[161] also used Costa ben Luca's work. A work by John Pecham, the later Archbishop, is found *in codice* with Adam.[162] Adam has illustrious connections with earlier contemporary and later writers. His place among them is undisputed.

As with Oxford, natural philosophy continued to form part of the canon of studies at Toulouse, as the document from the faculty of arts at Toulouse on April 10th 1309 shows. Natural philosophy must be studied:

> During the first year the books of the physics were to be taught. During the second year the *Liber de generatione et corruptione*, the books of the *Parva naturalia* the *Liber de causa motus animalium,* and the *Liber de progressu animalium* were to be lectured upon.[163]

This chapter has shown the canonisation of Aristotelianism in the medieval Arts Faculty, and the importance of Oxford university and Adam of Buckfield in this process. The next chapter will deal with the extant manuscripts in which the works of Adam of Buckfield survive.

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1 . For information on Adam's life see A. B. Emden, *A biographical register of the University of Oxford to A.D.1500,* 3 vols (Oxford: Clarendon Press, 1957-9), I, p.297. J. C. Russell, *Dictionary of writers of thirteenth century England* (London: Longmans Green and Co., 1936), pp.2-3.
2 . A. Pelzer, 'Une source inconnue de Roger Bacon. Alfred de Sareshel commentateur des Metéorologiques d'Aristote', *Archivum Franciscanum Historicum,* 11 (1919), 44-67.
3 . Martin Grabmann, 'Mittelalterliche lateinische Aristotelesübersetzungen und Aristoteleskommentare in Handschriften spanischer Bibliotheken', *Sitzungsberichte der Bayerischen Akademie der Wissenschaften* (Munich, 1928, pp.46-120) and Martin Grabmann, 'Die Aristoteleskommentatoren Adam von Bocfeld und Adam von Bouchermefort. Die Anfänge der Erklärung des 'neuen Aristoteles' in England', in *Mittelalterliches Geistesleben,* 3 vols (Munich: Max Hueber Verlag, 1936), II, pp.138-182.
4 . F. Pelster, 'Adam von Bocfeld (Bockingfold), ein Oxforder Erklärer des Aristoteles um die Mitte des 13. Jahrhunderts. Sein Leben und seine Schriften', *Scholastik,* 2 (1936), 196-224.
5 . D. Salman, 'Note sur la première influence d'Averroès', *Revue néo-scholastique de philosophie,* 40 (1937), 203-212.
6 . Thomson, 'A note on the works...', 55-87 (p.57).
7 . Cobban discusses the average age of entry into the arts course at the medieval universities. This age plus the duration of study would put most graduates in their mid-twenties. See A. B. Cobban, *The medieval English universities: Oxford and Cambridge to c.1500* (Aldershot: Scolar, 1988), pp.351-353.
8 . M. W. Sheehan, 'The Religious Orders 1220-1370' in *The history of the University of Oxford,* ed. by J. I. Catto, 3 vols (Oxford: Clarendon Press, 1984), I, pp.193-221 (p.194).
9 . Adam Marsh, *Monumenta Franciscana, Rerum Brittanicarum Medii Aevii Scriptores* (Ep.56) ed. by J. S. Brewer (London: Longman, 1858), p.165.
10 . Noone, 308-316 (p.308).
11 . As pointed out by Franz Pelster, see Pelster, 196-224.
12 . Emden, I, p.297.
13 . *Diocesis Lincolniensis. Rotuli Roberti Grossteste Episcopi Lincolniensis A.D. 1235-1253,* ed. by F. N. Davis, C. W. Fester, and A. Hamilton Thompson (London: York and Canterbury Society, 1913), p.379.
14 . My translation.
15 . R. Sharpe, *A handlist of the Latin writers of Great Britain and Ireland before 1540,* (Turnhout: Brepols, 1997), p.6.
16 . Emden, I, p.297.
17 . See Pelster, 196-224 (p.202). See *Diocesis Lincolniensis. Rotuli Roberti Grossteste...,* pp.239, 341.
18 . R. N. Swanson, 'Learnings and livings: university study and clerical careers in later medieval England', *History of Universities,* 6 (1986-7), 81-103 (p.82).
19 . D. R. Leader, *The history of the University of Cambridge,* 3 vols (Cambridge: Cambridge University Press, 1988), I, p.41.

20 . R. N. Swanson, 'Universities, graduates and benefices in later medieval England', *Past and Present,* 106 (1985), 28-61 (p.31).
21 . Noone, 308-316 (pp.315-6).
22 . James McEvoy, *The philosophy of Robert Grosseteste* (Oxford: Clarendon Press, 1982), p.19.
23 . Pelster, 196-224 (p.202).
24 . Thomson, 'A further note...', 23-32 (p.32).
25 . Callus, 'Introduction of Aristotelian...', 229-281 (p.255).
26 . G. Leff, *Paris and Oxford universities in the thirteenth and fourteenth centuries* (New York: John Wiley and Sons, 1968), p.138.
27 . Cobban, pp.172-3. "There would always have been some lecturers who would elect to remain as university teachers for a number of years, maintained in part by a college fellowship, or by an ecclesiastical benefice, or by membership of a religious order."
28 . Cobban, p.357.
29 . Weisheipl, 'Curriculum of the faculty of arts...', 143-185 (p.144).
30 . Thomson, 'A further note...', 23-32 (p.24).
31 . Adam of Buckfield often quotes Alfred of Shareshill, possibly the earliest Oxford commentator on the natural works.
32 . Johannes Blund, *Tractatus De Anima* ed. by D. A. Callus and R. W. Hunt (Auctores Britannici Medii Aevii) (Oxford: Oxford University Press, 1970), pp.v-19.
33 . Callus, 'Introduction of Aristotelian...', 229-281 (pp.264-5).
34 . Callus, 'Introduction of Aristotelian...', 229-281 (pp.266,279).
35 . Callus, 'Introduction of Aristotelian...', 229-281 (p.255).
36 . Noone, 308-316 (p.308).
37 . Thomson, 'A further note...', 23-32 (p.32).
38 . Noone, 308-316 (p.316).
39 . "The *Corpus vetustius* is so-called by modern scholars to distinguish it from later collection of works of natural science (*Corpus recentius*) in which the texts translated from Arabic were replaced by Greek-Latin translations." Burnett, Charles, 'The introduction of Aristotle's natural philosophy in Great Britain: a preliminary survey of the manuscript evidence', in *Aristotle in Britain in the middle ages*, (Rencontres de Philosophie Médiévale) (Turnhout: Brepols, 1996), pp.21-49 (p.35).
40 . Charles Burnett ,Pizzini lectures.
41 . G. I. Lacombe, *Aristoteles Latinus, Pars Prior* (Bruges-Paris: Desclée de Brouwer, 1957), p.49.
42 . Lacombe, *Pars Prior*, p.49.
43. Burnett, 'The introduction of Aristotle's...', pp.21-49 (pp.36-37).
44 . Noone gives the number of surviving manuscripts attributed to Adam: "Altogether, fifty-six manuscripts containing Adam's commentaries are known." Lists of these can be found in three articles by S.H.Thomson (see bibliography).
45 . See bibliography for further reading. Some seminal works are: Cobban, Daly, Rashdall and *The History of the University of Oxford*, ed. by Catto.
46 . See R. W. Southern, 'From schools to university' in *The history of the University of Oxford*, I, pp.1-37.
47 . Cobban, p.104.
48 . Cobban, p.33.
49 . Southern, 'From schools to university', pp.1-37 (pp.12, 15).
50 . See Southern, 'From schools to university', pp.1-37.
51 . Cobban, 1988, p.37.
52 . Cobban, 1988, p.39.
53 . Leff, *Paris and Oxford...*, p.82.

54 . Leff, *Paris and Oxford...*, p.76.
55 . Leff, *Paris and Oxford...*, p.75.
56 . Southern, 'From schools to university', pp.1-37 (p.28).
57 . Cobban, p.45.
58 . Leader, I, p.18.

59 . Burnett, 'The introduction of Aristotle's...', pp.21-49 (p. 22).
60 . Alfonso Ingegno, 'The new philosophy of nature', in *The Cambridge history of renaissance philosophy*, ed. by Charles B. Schmitt and Quentin Skinner (Cambridge: Cambridge University Press, 1988), pp.236-263.
61 . Marenbon, *Later medieval philosophy*, p.18.
62 . Callus, 'Introduction of Aristotelian...', 229-281 (p.230).
63 . Reuven Shlomo Avi-Yonah, 'The Aristotelian revolution: a study of the transformation of medieval cosmology, 1150-1250', (unpublished doctoral dissertation, University of Harvard, 1986), Ch.2.
64 . McEvoy, *The philosophy of Robert Grosseteste*, p.226.
65 . Marenbon, *Later medieval philosophy*, p.54.
66 . Ferruolo gives accounts of many criticisms and reactions against the universities and what was taught in them. See Stephen C. Ferruolo, *The origins of the university* (California: Stanford University Press, 1985), especially part two.
67 . This can clearly be seen from an examination of the bans on certain teaching in the various pieces of legislation concerning Paris university in the thirteenth century. The discussion below will make this clear.
68 . *Chartularium Universitatis Parisensis*, ed. by H. S. Denifle and A. Chatelain, 4 vols (Paris, 1889), I, n. 11, p.70.
69 . From Lynn Thorndike, *University records of life in the middle ages* (Columbia: Columbia University Press, 1944), p.26-7. The Condemnation of 1210, decree of the bishops of Sens, Paris, etc. against the heretics and the natural philosophy of Aristotle.
70 . Callus, 'Introduction of Aristotelian...', 229-281 (p.241).
71 . Piltz, p.134.
72 . *Chartularium...*, pp.78-79.
73 . My translation.
74 . *Chartularium...*, pp.78-79.
75 . From Thorndike, *University records...*, p.28. The rules of the University of Paris, 1215.
76 . Brian Lawn, *The rise and decline of the scholastic 'Quaestio Disputata'* (Leiden: E. J. Brill, 1993), p.32.
77 . Marenbon, *Later medieval philosophy*, pp.54-5.
78 . *Chartularium...*, p.114.
79 . *Chartularium...*,, p.131.
80 . From Thorndike, *University records...*, p.34. Invitation to Toulouse, 1229.
81 . *Chartularium...*, p.138.
82 . From Thorndike, *University records...*, p.38. Papal regulations for the University of Paris by Gregory IX, April 13, 1231. *Chartularium...*, pp.136-39.
83 . From Thorndike, *University records...*, p. 39.
84 . *Chartularium...*, pp.143-4.
85 . From Thorndike, *University records...*, p.40. The books on nature to be expurgated, 1231. *Chartularium...*, pp.143-4.
86 . *Chartularium...*, p.143.
87 . My translation.
88 . Leff, *Paris and Oxford...*, p.141.
89. Steenberghen, F. Van, *The philosophical movement of the thirteenth century* (London: Nelson, 1955), p.44.

90 . Leff, *Paris and Oxford...*, p.141.
91. Steenberghen, *The philosophical movement...*, p.46. Foe More information on the university of Touylouse see Smith, C.E. *The university of Toulouse in the middle ages* (Milwaukee: The Marquette Press, 1958).
92 . *Chartularium...*, p.228.
93 . *Chartularium...*, p.278.
94 . Thorndike, *University records...*, pp.64-5.
95 . Leff, *Paris and Oxford...*, p.135.
96 . *Chartularium...*,, p.543.
97 . Decima L. Douie, *Archbishop Pecham* (Oxford: Clarendon Press, 1952), p.4.
98 . *etiam librum de anima in toto vel in parte. Chartularium...*, p.145.
99 . *Chartularium...*, p.145.
100 . My translation.
101 . P. Osmund Lewry, 'Grammar, logic and rhetoric 1220-1320', in *The history of the University of Oxford*, I, pp.401-433 (p.410).
102 . Callus, 'Introduction of Aristotelian...', 229-281 (p.233).
103 . McEvoy, *The philosophy of Robert Grosseteste*, p.19.
104 . Rashdall, 1936, II, p.241.
105 . McEvoy, *The philosophy of Robert Grosseteste*, Ch.1.
106 . McEvoy, *The philosophy of Robert Grosseteste*.
107 . McEvoy, *The philosophy of Robert Grosseteste*, p.19.
108 . Callus, 'Introduction of Aristotelian...', 229-281 (p.233).
109 . Callus, 'Introduction of Aristotelian...', 229-281 (p.234).
110 . Cobban, p.41.
111 . Blund, 1970.
112 . Blund, p.viii.
113 . Cobban, pp.42-3.
114 . Piltz, p.170.
115 . Rev. Henry Anstey, *Munimenta academica or documents illustrative of academic life and studies at Oxford* in series *Rerum Britannicum Medii Aevi Scriptores*, 50, 2 vols (London: Her Majesty's Stationery Office, 1868), II, pp.34-5.
116 . My translation.
117 . Callus, 'Introduction of Aristotelian...', 229-281 (p.263).
118 . Weisheipl, 'Curriculum of the faculty of arts...', 143-185 (p.159).
119 . Noone, 308-316.
120. Steenberghen, *The philosophical movement...*, pp.46-7.
121 . Daly, p.79.
122 . Sheehan, 1984, pp.193-221 (p.194).
123 . Lawn, p.28.
124 . Nancy Siraisi, *Taddeo Alderotti and his pupils* (Princeton: Princeton University Press, 1981), pp.7-8.
125 . R. K. French and A. Cunningham, *Before science: the invention of the friars' natural philosophy* (Aldershot: Scolar, 1996), p.2.
126 . French and Cunningham, p.33.
127 . French and Cunningham, p.52.
128 . French and Cunningham, p.269.
129 . French and Cunningham, Ch.7.
130 . Nancy Siraisi, *Medieval and early renaissance medicine: an introduction to knowledge and practice* (Chicago: Chicasgo Univeristy Press, 1990), p.58.
131 . Siraisi, *Taddeo Alderotti...*, p.xv.
132 . Siraisi, *Taddeo Alderotti...*, p.10.

133 . Siraisi, *Taddeo Alderotti...*, p.21.
134 . Cobban, p.400.
135 . Leader, I, p.309.
136 . Leader, I, Chapters 3 and 6.
137 . Leader, I, p.308.
138 . Burnett, 'The introduction of Aristotle's...', pp.21-49 (p.27).
139 . "But above all Alfred was the pioneer in the long list of medieval commentators on the *libri naturales*." Callus, 'Introduction of Aristotelian...', 229-281 (p.236).
140 . Callus, 'Introduction of Aristotelian...', 229-281 (pp.236-7).
141 . These have been observed during research on the *Corpus vetustius* and demands more research beyond the scope of this thesis; see chapter five.
142 . Burnett, 'The introduction of Aristotle's...', pp.21-49 (p.42).
143 . A commentary on *De sensu et sensato* by Alexander Nequam appears in a manuscript containing a collection of commentaries alongside Adam of Buckfield. See ms Paris, Bibliothèque nationale, lat. 14714.
144 . Cobban, p.41.
145 . Callus, 'Introduction of Aristotelian...', 229-281 (pp.233-5).
146 . Callus, 'Introduction of Aristotelian...', 229-281 (p.241).
147 . D. Knowles, *The evolution of medieval thought* (London: Longman, 1962), p.267.
148 . Callus, 'Introduction of Aristotelian...', 229-281 (p.243).
149 . Cobban, p.42.
150 . Callus, 'Introduction of Aristotelian...', 229-281 (p.241).
151 . Burnett gives this group as Alfred of Shareshill, Roger of Hereford, Alexander Nequam, John Blund and the young Robert Grosseteste. See Burnett, 'The introduction of Aristotle's...', pp.21-49 (p.31).
152 . Callus, 'Introduction of Aristotelian...', 229-281 (pp.257-9).
153 . Callus, 'Introduction of Aristotelian...', 229-281 (p.257).
154 . French and Cunningham, p.231. "He had much intimate contact with Franciscans, being appointed lecturer in theology to their house at Oxford, 1229-35."
155 . Marenbon, *Later medieval philosophy*, p.51.
156 . See Adam Marsh's recommendation of Adam of Buckfield to Grosseteste earlier in the chapter.
157 . Noone, 308-316 (p.308 note 1).
158 . Richard C. Dales, 'R. de Staningtona: an unknown writer of the thirteenth century', *Journal of the History of Philosophy*, 4 (1966), 199-208 (p.199).
159 . Russell, pp.173-4.
160 . D. E. Sharpe, *Franciscan philosophy at Oxford in the thirteenth century* (Oxford: Oxford University Press, 1930), p.91.
161 . Sharpe, p.234.
162 . Leipzig, Universitätsbibl., 1406. Contains Pecham's commentary on *De sphaera* as well as a commentary by Adam. See Louis Bataillon, 'Adam of Bocfeld. Further manuscripts', *Medievalia et Humanistica*, 13 (1960), 35-39 (p.36, fn.12)
163 . Weisheipl, 'Curriculum of the faculty of arts...', 143-185 (pp.148-9).

Chapter Two: The Manuscripts

The two types of manuscripts in which Adam's work is found

In this chapter we will discuss the manuscripts in which the work of Adam of Buckfield survives. There is much these manuscripts can tell us concerning Adam of Buckfield and the study of natural philosophy in the *studia generalia* in the late thirteenth century. Adam's commentaries or fragments of his commentaries are found in two distinct types of manuscripts, *Corpus vetustius* manuscripts and collections of commentaries.

(I) Manuscripts containing the Corpus vetustius[1]

The *Corpus Vetustius* is the name given to a family of manuscripts containing the older medieval Latin translations of Aristotelian texts on natural philosophy, also known as the *libri naturales* and the physical works. Most of the texts are peripatetic, that is, by Aristotle. Three other natural philosophical and metaphysical works by other authors appear in the collection. These texts were central to the curriculum of the arts faculties in the medieval universities.[2] The collection always begins with the *De physica*, which sets out the general principles of natural motion or change, and proceeds through works which explain how these principles explain particular kinds of motion, first in the heavens and then on earth.

The very fact that these works appear regularly in single manuscripts, generally in the same order, shows that this was the canon of knowledge for natural philosophy, as discussed in Chapter 1.

The layout of a typical page from the *Corpus Vetustius* tells us much about the

purposes and production of the manuscripts. The folios of the *Corpus Vetustius* manuscripts contain a central text, for example *De physica* by Aristotle which always begins the collections. This takes up the central part of the leaf, but as much as four-fifths of the writing area is left blank for the reception of gloss. The page is ruled in such a way that large ruled margins are created for glosses or commentaries to be written in and often as many as three separate columns appear in these margins (see figures A and J).

Some manuscripts are glossed, others are not. When manuscripts do have a 'gloss' this appears as a complex system of marginal glosses. The glosses correct, comment on and elucidate the central text. It seems apparent that the marginal glosses were written in at a later date than the central text and after lectures had been heard. The interest for this thesis is that in certain manuscripts fragments of Adam's commentaries appear in these marginal glosses along with fragments of commentaries by other authors.[3] It would seem that these glosses represent systematic teaching of the texts that compose the *Corpus vetustius* by the substantial use of authoritative commentaries. Fragments of Adam's commentaries appear in what has been termed the 'Oxford' gloss. This is a 'common' gloss shared by many manucripts and will be discussed in Chapter 5.

The *Corpus vetustius* interests us not only because glosses from Adam's commentaries but sometimes whole commentaries[4] by Adam are found in the margins of these manuscripts. In some manuscripts however both are found, that is, whole commentaries by Adam appear as continuous marginal commentary as well as fragments in glosses.[5] These types of annotation may reflect differing teaching practices, or differing levels of teaching and availability of commentaries. I will discuss these two different types of annotation within the *Corpus vetustius*.

Important questions are raised about the teaching or glossing practice behind these differing types of annotation in the *Corpus vetustius* codices. Why and how were these

manuscripts produced? Who glossed them and for what reason?

The manuscripts containing the *Corpus vestustius* and the *glossa marginalia* that appear in the manuscripts themselves suggest university teaching. It is clear that the majority of these glosses are a product of notes taken whilst hearing lectures. It is therefore reasonable to assume that these manuscripts were glossed in a university. It would seem that certain students would write up their lecture-notes to form these glosses. Indeed notes seem to have been written up in a neat organised way after lectures. Rough notes were probably taken on wax tablets:

> During the middle ages wax tablets were in general use. Daily life cannot be imagined without them: students were supposed to carry a diptych at their belt for easy use, while writers used them for rough notes.[6]

It is likely that these glosses were written by a student who had already reached the level of BA and was studying for his MA. It is at this stage in his education that who would be studying natural philosophy.[7] The manuscripts may have aided a student if he did gain the mastership of arts and was expected to teach as a regent master.

The evidence for university teaching comes firstly from the manuscript **British Library, Royal 12 G II**. It belonged to Rochester Abbey, as we can see from the prior's threatened anathema to potential thieves: *Volumen de naturalibus aristotelis de Claustro Roffensi. Per Johannem Priorem Roffensem hunc librum quicunque alienaverit ab hoc claustro, alienatum celaverit, vel hunc titulum in fraudem deleverit; dampnacionem incurrit Anathematis lati singulis annis a Priore et toto cecu capituli Roffensis.* On the same page is a note by the student who used the volume in Oxford: *quem librum scripsit henricus de renham, et audivit in scolis oxonie et emendavit et glosavit audiendo.* Henricus de renham was Henry of Rainham, who as he says, wrote the manuscript, heard lectures at Oxford and then, while hearing, emended and glossed the texts within his copy of the

Corpus vetustius. The central Aristotelian texts were probably copied from *peciae* (specimens of fixed lengths of text kept by the university stationer); *pecia* marks are clearly seen in the manuscript (e.g. f.13v).[8] The manuscript as it was at this point was unannotated. It was up to Henry to complete the job because no common gloss existed for these texts as it did for the Bible in the form of the *glossa ordinaria.* At some point of copying the text the scribe could write nothing in the margins by way of agreed gloss. The Aristotelian texts were, as said above, not always well translated, and coming through the Arabic, often obscure. To understand the text glossing was required to clear up difficult points and scribal errors. This was one of the purposes of the postils and glosses that Henry wrote down from his master's teaching. When the annotations were finished it was a complete and understandable text; it seems then to have been given to the Abbey. Teaching could now be carried out using this volume. This seems to have been the purpose of Henry's emendations and glosses and the 'corrections' of another student Gaudfridus de Aspal.[9] This evidence for university teaching along with evidence from glosses contained within the *Corpus vetustius* manuscripts is convincing.

Religious patronage played a large role in medieval university life. Many young men received sponsorship for their education from the church in the form of benefices and donations from religious houses. Others received private patronage. Young men with some financial backing, under the patronage of religious houses for example, would be sent to university to gain an education. Often they could do something in return for their patrons. The religious houses often had their own libraries that they would wish to increase, "Some monasteries took the opportunity afforded by the presence of their members in Oxford to improve their collections as well as to provide for their students".[10] This could be done by the young men who they sent to centres of education and therefore centres of manuscripts, for "monks would have needed to acquire copies of texts which were not then available in the existing collections".[11] Indeed this may well have been the case for texts within the *Corpus vetustius.* Much evidence for this comes from catalogues of manuscripts, and this

evidence will be given below. During the students' stay at a *studium generale* they would hear lectures, as we have seen. "While in Oxford student-monks annotated the books assigned to them".[12] In this way a religious house could gain a text with the best possible glosses explaining it, that is, glosses that were considered most useful and up to date by the masters teaching at a university. This may well have been for the teaching programme of these religious houses. This process was essential in the distribution of many manuscripts concerning many areas of learning. Indeed there was a Papal bull encouraging the multiplication of manuscripts in this way:

> In 1230 the bull *Quo elongati* of Gregory IX, which established the principle that a Franciscan friar could have the use of property but not the possession of it, enabled the order to build up collections of books for the purposes of study. The Dominicans had books from the start, and students were provided with money to buy books.[13]

We have evidence to support this kind of patronage from Henry of Rainham. It seems likely that Henry was provided with funds to secure the copying of this expensive book by Rochester abbey to emend whilst studying at Oxford and to be returned to Rochester when complete. It is likely that Rochester was sponsoring Henry's education at Oxford and this was a duty on his part to perform. **BL, Royal 12 G III** also has the same inscription by the prior John (f.2v); however with no note like Henry's. This shows that Rochester was certainly entering into this kind of patronage. We have further information suggesting this process. Many of the manuscripts seem to have belonged to religious houses and religious orders.

Henry came from Rochester. The Abbot of Rochester Abbey had the same name "de Renham". The abbey had connections with Walter de Merton, and with his plans for a college. Walter de Merton's college supported young men through education including twelve of his nephews.[14] This foundation was later to become Merton College.

Durham appears as another religious house undertaking this type of patronage; "Monks from Durham were at Oxford by 1278-9".[15] Manuscript **Durham, Dean and Chapter Library C.III.17** is an example of a *Corpus vetustius* apparently sponsored by a religious house. **Durham, DCL C.III.17** has an interesting yet hardly legible ownership note on a flyleaf that reads *Liber fratris Iohannis de Wessyngton monachi Dunelmensis.* The book of Brother John of Wessyngton, monk of Durham is evidence of a religious patronage.

Manuscripts and patronage.

From descriptions of the manuscripts we can glimpse some details of patronage and the cost of the *Corpus vetustius* manuscripts. Below is a list of *Corpus vetustius* manuscripts in which some amount of Adam's commentaries are found and which also carry evidence of patronage. Relevant descriptions of these manuscripts are given. (I have limited myself to manuscripts relevant to Adam of Buckfield; to give descriptions of the hundred or so copies of the *Corpus vetustius* would be too lengthy here.)

Bologna, Biblioteca universitaria 1180 (2344). It is interesting that this codex was once in a monastic library at Bologna, but it is not possible to say when. There is no proof of who commissioned this codex, but it may well have been this religious house or the order to which it belonged. *Liber fuit olim, monasterii Salvatoris bononiensis No. 10245. f.3r et in Bibl. Nat. Parisiensem saec. XIX delatus.*[16]

Florence, Biblioteca mediceo-laurenziana Pl. XIII, sin.7 (Santa Croce). In a later hand than the main body of text is written *liber conventus S. Crucis de Florentia ordinis minorum.* It is also inscribed, *Iste liber est Fratris Calini Num.541.*[17] So this was a Franciscan book, used by brother Calinus. The later inscription of ownership does not necessarily indicate a date of acquisition. The connection with the Franciscans, who were so prominent at Oxford, seems more than mere coincidence, particularly since Thomson says the script of the marginalia in this manuscript is English.[18] Perhaps it was annotated by a

Franciscan in Oxford but was returned to the Franciscan convent of the Holy Cross in Florence. The second note is interesting. It reflects the Papal bull allowing friars to borrow but not possess books.[19] The number given 541 is presumably for identification in a register of books. The religious connection is again important.

Cambridge, Gonville and Caius College 506/384. This manuscript has a valuable note at the end of the Physics: *correctus a magistro G. de Haspal. Magister Gaufridus <<de aspal>>, canonicus ecclesiae S. Pauli Londiniensis, fuit <<quondam conscolaris>> Joannis Peckham, archiepiscopi Cantuariensis.*[20] Here we have a well-known personality, who seems to have corrected the text like Henry of Rainham, mentioned in direct association with this codex. Gaufridus, a canon of Saint Paul's London, is mentioned as a fellow student of John Peckham, the famous scholar and archbishop.

Paris, Bibliothèque nationale lat. 12953. This codex has been in religious hands but there is no solid evidence as above as to who annotated this volume and for whom. *Codex olim sancti Mauri Fossatensis, 1077, deinde Sancti Germani de Pratis 604.*[21]

Rome, Convento de Santa Maria sopra Minerva, without shelfmark. On f.321r is this note: *Liber Magistri Leonardi de Perusio ordinis predicatorum.* This book belonged to or was used by Leonard of Perugia, a member of the Dominican order and later its minister general, *hic leonardus est leonardus de Mansuetis qui fuit etiam generalis minister ordinis praedicatorum.*[22] Clearly the Orders of Friars could act like religious houses in their use of books. As said above, the Dominicans spent money on such codices.

New Haven, Yale University, Medical Historical Library 12. This manuscript has a note written in a hand contemporary to the main text and gloss; *isti libri naturales deputati sunt ad usum fratris Nicolaus de Probsdorf lectoris et sunt empti pro II marcis argenti.*[23] Again we see that a manuscript was acquired for the use of a brother, Nicolaus de Probsdorf. This suggests that he was a Friar.[24] Importantly this note tells us that Nicolaus was a *lector*, a lecturer. This hints at the purpose of these types of manuscripts and how they were used. This manuscript was brought for two marks of silver.

BAV, Urb. lat. 206. In this manuscript on f.103v is the note ... *anno gratie m°cc°l° tertio die Cathedre S. Petri recepit Willelmus de Salers XII solidos super istos libros naturales xx petiarum...* Here we discover who sold the book and for how much. It was brought from William de Salers for 12 shillings and consisted of 20 *peciae* on the 22 February 1250.[25] A note of possession also exists in a fourteenth-century hand; *iste liber est ad usum fratris Geraudi Carbonelli de ordine fratrum.*[26] The use of the term *ad usum* would suggest that Geraudus Carbonelli was a friar and that the book, owned by the Order, was for his immediate use.[27] The central natural philosophical texts contained in this manuscript are in an English script and the glosses appear in English, French and Italian hands.[28] It seems that this manuscript was annotated by more than one glossator, possibly in more than one place. With the Friars' presence at Oxford it can be easily postulated that this manuscript was originally annotated at Oxford and then passed through the Franciscan network in France and Italy ending up in the possession of Geraudus. Probably this codex was originally commissioned for the use of the Franciscans. The twelve *solidi* is more evidence of the value of these manuscripts, generally about ten shillings, and it seems likely that William de Salers was the scribe, who was normally paid by the *pecia*. Certainly it looks as if St. Peter's Cathedral was the first owner.

Use of the manuscripts in teaching

Indeed these manuscripts were not necessary for the 'undergraduate' according to Parkes:

> undergraduates reading for their first degree in the faculty of arts did not need books, since they were required to hear lectures in which a master or a bachelor read out a prescribed text sentence by sentence, and explained and commented on each as he went along.[29]

This is slightly misleading, for undergraduate is a modern term not suitable for medieval higher education. It may well be that BAs studying for their MA glossed these manuscripts whilst studying natural philosophy in preparation for teaching. It is likely that a student below the level of bachelor would not be required to write.

Thus from the contents of both the main text and of the gloss of the *Corpus vetustius* it seems that this was some form of textbook for the *teaching* in an arts faculty or a *studium* of a religious house or order; these codices are certainly not mere student notebooks. If masters possessed copies of the *Corpus Vetustius*, they had taken great pains and spent much money obtaining and glossing them. It is hard to see why this would be done unless the annotator had an aim to teach or was fulfilling a duty to his benefactor. The BA who annotated the text and became an MA now had the master's knowledge, the agreed interpretation, which he then taught to his own students.The high cost of these manuscripts suggests some patronage of whatever form.

To return, then, to Henry of Rainham we can see the postils represent a thorough glossing system reflecting both a high level of teaching and the availability of useful commentary. The 'Oxford' gloss was an interpretation agreed among the masters. In contrast, the manuscripts containing a full marginal commentary of a single author reflect a different situation. Possibly some continental centres did not have an agreed interpretation built up, like the 'Oxford' gloss, from selections from earlier glosses, and had to depend on a single commentary. If so it may be evidence that Oxford was more advanced in its masters' exposition of natural philosophy.[30]

Manuscript quality.

It would seem likely from examining the manuscripts containing the *Corpus vetustius* that their production was mostly paid for by religious houses or at least some other patron. The manuscripts often appear with substantial illuminations and rubrications, which would make it seem unlikely that these were student notebooks. However the occasional

manuscript is less well presented, and possibly these could reflect privately owned books by masters. In Henry's case we know who owned the manuscript and this is important evidence as to the owners of the *Corpus vetustius* manuscripts. We have also seen that there is evidence from within the manuscripts to further the idea that some of these manuscripts were destined for great religious houses. From descriptions of the manuscripts we can also clearly see that much more money went into the copies of the *Corpus vetustius* manuscripts compared to our second category, manuscripts containing collections of commentaries.

Information about the manuscripts noted below comes from articles by Thomson,[31] Bataillon[32] and Noone.[33] The main descriptions of the manuscripts are from Lacombe; other catalogues used have been footnoted. Also included are manuscripts in which I have discovered fragments of Adam's commentaries. Descriptions will be given first of the *Corpus vetustius* manuscripts and then of the manuscripts containing collections of commentaries, to highlight the differences between the two.

BVA, Urb. lat. 206 has large gold initials decorated with various colours. There are also fine illustrations *(ff.258, 266)* with red, blue and violet colourings.[34]

FL, Bml, Pl. XIII, sin.7 (Santa Croce) Has a clearly marked distinction in script between the large central text and marginal commentary, the text being described by Lacombe as *grandioribus*. The manuscript has the usual highly decorated and coloured initial letters; as well as blue and red running titles.[35]

Paris, Bibliothèque nationale, fonds latin 6322 has drawings to accompany the usual decorations. There are the usual highly coloured initials, which extend into the margins, decorated with various colours and drawings of small animals. Smaller initials appear in red or blue ink. The titles are in blue or red ink; and roman numerals in the margins divid up the text.[36]

Bologna, Biblioteca Comunale dell'Archiginnasio A.127. Here, as is not unusual, is found again the use of expensive gold leaf in the initials which are also coloured with red ink; the smaller initials are in blue or red ink.[37]

Camb., Gonville and Caius College 506/384. This manuscript has many elaborate sketches and drawings. Much time therefore was spent over the decoration of this codex.[38] We have the usual decorated initials, running titles in alternate red and blue ink. Initial letters appear in blue ink.[39]

Madrid, Biblioteca Nacional 1067. Gold is used again for initials; the term *de ornamentación caligráfica*[40] highlights the flourishes that are often found in these manuscripts. Smaller initials are in interweaving red or blue ink.[41]

Monte Cassino, Biblioteca dell'Abbazia 8 VV. Drawings appear in this manuscripts decorating the variously coloured initials.[42]

Oxford, Corpus Christi College 114. Serpent-like decorations of various colours appear with the initial letters. The next word after the initial is either white or reddish. Smaller initials are in intertwining red or blue ink.[43]

B.N. lat. 12953. This is a luxurious manuscript with a elegant script. Pictures have also been skilfully drawn in the usual various colours, including gold. The running titles are alternately in red or blue ink.[44]

New Haven YU, MHL 12. Drawings appear in various colours with the larger initials. The running titles are alternately in blue or red ink.[45]

Durham DCL C.III.17. This manuscript has the usual decorated letters and rubrication that we would expect to find in such a codex. It has large initial letters for the beginning of books that are very ornate and the decoration of these spreads right across and all the way down the central text. It also has decorated capitals throughout the text. The ruling is elaborate for glosses. The central script is an elegant *Gothica Textualis Semi-quadrata* (note upturned minims). There are detailed sketches to highlight places in text and diagrams especially the *De physica*; also use is made of blue and red running titles. There appears a gilded wine-cup or goblet on one leaf, accompanied by a floral pattern. This is a very high level of decoration. The cost of gilding must have made this an expensive codex indeed.

BL, Royal 12 G III. This manuscript has very ornate multicoloured initial capitals for the

beginning of books. Other initials are in red and blue ink. There are elaborate rulings for glosses. The titles are coloured and there is rubrication throughout. The central text is beautiful *Gothica Textualis semi-quadrata.*[46]

Munich, Staatsbibliothek Clm. 2604. This manuscript seems less impressive than most of the others when descriptions are compared. The larger initials are coloured partly red and blue; and the small initials are coloured either red or blue.[47]

Oxford, Corpus Christi College 111. This manuscript has the common intricate decoration for initial letters. There is a large amount of swirling flourishes that accompany a highly coloured initial. Other initials are in blue or red ink. The running titles are in black ink.[48]

Paris, Bibliothèque nationale, fonds latin 6319. The decorations for this manuscript do not appear over-impressive; the titles are alternately in blue or red ink; and the initials are in blue or red ink.[49]

Other copies of the *Corpus vetustius* I have seen on microfilm share similar decorations and illuminations.

These codices, therefore, share common features, such as highly ornate initial letters, multicoloured titles, often flourished (see figures A, B, C, D and E). Ornate initials and rubrication usually continue throughout the text. Some copies use gold leaf and expensive coloured inks. The central script is usually *gothica rotunda*[50] of some form, however some with higher grade scripts than others. There is a large space left for the addition of glosses and these are usually written in a cursive hand. Many have detailed drawings both in the ornate initials and throughout the manuscript: some seem purely for decoration such as the dragons in **Oxf., Corpus Christi College 114**, and the wine-cup in **Durham, DCL C.III.17**. All the decorative techniques above add greatly to the cost of a manuscript in both man-hours, craftsmanship and materials This will contrast to the manuscripts containing collections of commentaries, which will be discussed below.

Before going on to discuss the manuscripts containing commentaries, it is useful to digress for a while to see the *Corpus vetustius* manuscripts in context with other types of

manuscripts with which they share certain qualities. From this it will become clear that the *Corpus vetustius* manuscripts are a different class of manuscript from the manuscripts containing collections of commentaries.

The Medical textbook

In many ways the *Corpus vetustius* manuscripts resemble the *Articella*[51] medical manuscripts. The *Articella*, like the *Corpus vetustius*, has until recently received little attention from scholars. However useful comparisons can be made between the two types of manuscripts. Both appear to reflect university teaching:

> The most obvious thing about the Articella is that it was the medical textbook of the middle ages. Learned medicine was scarcely possible without it and it is very often found, in libraries across Europe, as a physical single volume. For over three centuries it retained it position as the fundamental text.[52]

The *Corpus vetustius* has been considered as the university text book for natural philosophy. It was certainly a product of university teaching but seems to have been used elsewhere, possibly in the schools of great religious houses, as in the case of **BL, Royal 12 G II** which bears the inscription by Henry of Rainham. However in many ways the *Corpus vetustius* shares similarities with the *Articella*. In the *Articella* manuscripts we find what was considered the canon of medical knowledge for the medieval study of medicine and the same is true of the *Corpus vetustius*, which contains the recognised canon of knowledge on natural philosophy at the time it was compiled Both have a central text that represents the canonical knowledge. Both have commentary and gloss[53] accompanying the central text.

Both appear to share the purposes of collecting, in the form of marginal commentary and gloss, the most respected commentary upon the canonical texts. Both types of manuscripts do this in the same way, for ruled margins allow glosses to be written in near to the part of the central text with which the gloss is concerned. Both have a systematic gloss and some manuscripts appear to have a common gloss shared by certain manuscripts,[54] comparable to the biblical *glossa ordinaria*. This term, as far as I know, has not been applied to either the glosses in the *Articella* or *Corpus vetustius* manuscripts. Such a common gloss appears in the majority of manuscripts of the *Corpus vetustius* held in British libraries, at all events, for the *De differentia*, as I have found whilst transcribing such glosses in a search for fragments of Adam of Buckfield's commentaries. Both kinds of canon, the medical and philosophical, seem to reflect a similar sort of teaching. This is hardly surprising, since both are products of the medieval universities, and when the relationship between arts and medicine is considered, "The existence of the Articella as a textbook presupposes a formal curriculum of teaching and a wide agreement of what a medical education was."[55] This is true of the *Corpus vetustius* also, for it reflects the natural philosophical canon and curriculum that was part of the arts curriculum in the medieval universities.

Both types of manuscripts share similar adornments. In the *Articella* we find illuminated initials that contain pictures of masters teaching students. British Library, Harleian 3140, ff.7v and 137r, Paris, Bibliothèque nationale lat. 16177 f.1r give but two examples. There are many more including other such drawings as might be expected concerning the teaching and practice of medicine, and other drawings relating to subject matter. Such drawings are found in the *Corpus vetustius* manuscripts (see figure A, and British Library, Harleian 3487, f.4r, Camb., Gonville and Caius College 506/384 f.134). Camille points to a common repetroire of illustrations for teaching and exposition of the text.[56] The *Articella* appears to be neater in script and more highly and expensively decorated in many of its manuscripts but certainly not all. Indeed it would seem more money

was spent on these medical manuscripts Perhaps this reflects the fact that those students studying medicine were at a more advanced stage of study and possibly wealthier as well. Was there more money available to medical students to buy and annotate the *Articella*? Medieval learned medicine could be a lucrative practice.

Indeed the factors that led to the abandonment of the *Articella* as the medical canon may well be connected with the factors that led to the abandonment of the canon for natural philosophy, which is found in the *Corpus vetustius* and the *Corpus recentius* manuscripts. The study of both the *Articella* and the *Corpus vetustius* is likely to prove mutually beneficial:

> A rich area of investigation is the medieval use of the manucripts. The interlinear glosses and marginal postils range from students' notes, which reveal classroom practice, to formal commentaries. Inserted texts, ranging from material used to fill incomplete quires to texts imported to meet local demands, are also a very useful guide to contemporary expectations and needs.[57]

Similar common questions concern both the *Corpus vetustius* and the *Articella*.

In form also the *Corpus vetustius* manuscripts resemble the beautiful biblical manuscripts which, of all medieval manuscripts, received the greatest amount of attention in their composition, "For finer quality manuscripts, such as liturgical books in which the appearance of the book w0as a most important consideration, the scribes developed an elaborate, highly calligraphic 'display' script known as 'Textura'."[58] Do we begin to see a hierarchy of similar types of manuscripts? There was certainly a hierarchy of scripts that could be used for writing, "Scribes began to use different kinds of handwriting for different classes of books, and as a result a new 'hierarchy' of scripts arose."[59] The top grade scribes

were reserved for important religious works:

> The Gothic System of Scripts is a complex hierarchy of formal and cursive scripts developed from *s.* xii^{ex}- *s.* xvi (and later in conservative areas). Its principal initial characteristics are the formation of distinct categories of script suited for use in a well perceived hierarchy of books and texts, from *de luxe* liturgical volumes to university textbooks, and the rediscovery of cursive scripts proper..., initially... for documentary use, but also for book use from *s.* xiii^{ex}. These scripts were used in a secular production context (in which clerics often participated) and the monastic scriptorium alike.[60]

An examination of the scripts used can determine the importance of a script and the amount of money available.

The peak of medieval education was the study of theology. It seems hardly surprising that theological manuscripts received more finance than medical or arts manuscripts. However the form of the manuscripts, that of a central text with ruled margin for commentary and gloss, seems to have been handed on from theological works to the *Corpus vetustius* or arts manuscripts. This type of glossing is thought to have developed from Peter Lombard's *Sentences*, which were very influential throughout the middle ages.

Finally the use of gold leaf, inks, a high grade of script, various ostentatious decorations, a small area of actual central text and the large size of the letters adds greatly to the cost of a manuscript. Clearly there was a great deal of money available. The manuscripts' size, the number of skins used in their construction, alone are evidence of this. These manuscripts were more likely to have been paid for by wealthy religious houses, as indeed we know that many were. The decoration reflects the status of the owner.[61] Their presentation is extravagant compared to the manuscripts containing collections of commentaries, which seem to have been written with cost in mind. This is important in

understanding the purposes of the two distinct types of manuscripts. It will be seen below how much these manuscripts differ from one another.

(ii) Collections of Commentaries

The manuscripts containing authors' commentaries on texts, such as Adam's commentary on *De differentia spiritus et anime* in **Cambridge, Peterhouse 143** and **London, Wellcome Medico-Historical Library 3**, suggest a different picture. These manuscripts are usually of poorer quality than the *Corpus Vestustius* manuscripts. The main text is usually written in a quicker, cheaper and more highly abbreviated script than in the other type:

> The rapid expansion of the specialist disciplines, whose teaching methods were newly organised in the universities around 1200, in a very short time changed the writing of scientific books through the creation of new abbreviations and symbols for words and terms of frequent occurence, through greater utilisation of the grammatical structure and of Latin word formation, and through frequent use of suprascript final syllables.[62]

Cursive or corrupt gothic bookhand is used for the commentaries whereas more formal and therefore slower and more expensive texts are used in the *Corpus vestustius* manuscripts for writing the main central text:

> From s.xiii^{ex} cursives were also used for books, especially in the context of professional university book production which helped to disseminate influences and

generalize trends throughout much of Europe.[63]

The type of script for the manuscripts containing collections of commentaries is much quicker to write, takes up less space, and is therefore considerably cheaper, than the higher grades of script The script is not 'calligraphic' and is not for display but is practical and easy to read for a person familiar with the abbreviations, as we should imagine a teaching master at a *studium generale* would be.

There are few flourishes, often just capitals, and even these are often incomplete (see figures F and G). Rubrication is often left undone. This would suggest less money was available to create finer manuscripts.[64] I feel that this would suggest these manuscripts were made in the universities to be *used* in the universities. Certain marks appear, as in **Camb., Peterhouse 143,** that also suggest these are university manuscripts. 'Le pied de mouche' or fly's foot denotes a new paragraph and is common amongst such manuscripts.[65]

The contents of these manuscripts would suggest this as well. In these manuscripts commentaries are found alongside other commentaries, not texts with gloss. These seem to be purely for the purpose of teaching. They are not to read on their own, they are commentaries on *other* texts (i.e. the ones that appear with glosses in the other category of manuscripts). It would be pointless to own these commentaries without the original text. Indeed in the *Corpus vetustius* manuscripts described above are found glosses from different authors' commentaries no doubt reflecting what was considered the best explanations for various points. This is what is wanted if one manuscript with the most up-to-date teaching on, say, the *De differentia spiritus et anime* is required, rather than a manuscript containing just one commentary on it; since several authors appear in the manuscripts with glosses and several commentaries were used in the exposition of the text by the teacher (if it is accepted that the glosses reflect lecture notes) The question has to be asked whether these manuscripts were for use for teaching, by regent masters, or for learning by students. It

would seem likely that the cheaper production and the contents of the manuscripts would suggest they were aids for teachers or students inside the university by which they could compose or complement lectures. I feel that the appearance of Adam's commentary from **Camb., Peterhouse 143** in **Durham DCL C.III.17** as a gloss backs up this argument. The commentary must have been written before the gloss. It would therefore follow that the commentary was used in teaching.

Descriptions of these manuscripts backs up the argument about their ownership and use. Again I limit myself to manuscripts containing work by Adam of Buckfield.

Bologna, Collegio di Spagna, Biblioteca Albornotiana 159. No decoration is mentioned in Piana's description. The script is in three colours. The folios are not numbered, seemingly a cost-cutting measure.[66]

Bruges, Bibliothèque Publique 513. This manuscript has initials coloured and decorated to some extent.[67] Indeed many manuscripts containing collections of commentaries have decorated initials but these are never on the level that we see in many of the *Corpus vetustius* manuscripts.

Cambridge, Gonville and Caius College 367 (589). James says that it is written "in various highly contracted hands".[68] This is a sign of saving space, parchment, time and money. Written for practicality not display, surely this manuscript is more fitting for university use than to adorn the library of a great religious house.

El Escorial, Biblioteca del Monasterio f.II.8 This manuscript does not have initials or capitals, and they were most probably left out because a rubricator was not employed; *le faltan las iniciales y capitales. Encuadernacion de la Biblioteca del Escorial, corte dorado.*[69]

Erfurt, Stadtbücherei F. 318. This manuscript has some use of red and blue inks but none

of the extravagant features described for many of the *Corpus vetustius* manuscripts. Many of the descriptions used here are from Lacombe.[70] The differences in the descriptions can be clearly seen. Again the script is highly abbreviated and in this case difficult to read.[71]

Erlangen, Universitätsbibliothek 197 (Irm. 528). Any type of decoration has been left out, although space for modest capitals exists. This was probably due to a consideration of cost.[72]

Wellcome Historical Medical Library 3. Moorat[73] describes the script as a gothic bookhand in double columns. The manuscript has few initials, paragraph marks, incipits and marginal notes in red. My description of the script is that it is highly abbreviated and closely written. Spaces appear for small flourished capitals but these have not been filled in as with the rubrication in the text. There is only one small flourished capital (f.25v). Titles are of a single colour. There are several signs of an effort to save money in the production of this manuscript. The script is the highly abbreviated gothic bookhand common to such manuscripts, being cheap and practical. The decoration planned was minimal for this manuscript and was not completed, indeed it was hardly started. Its appearance was not foremost in the mind of its creators.

Oxford, Balliol College 241. Several good hands, some almost of charter-type (apparently written in Paris), with flourished capitals, and small penwork initials with saw-pattern part-border, in red and blue.[74] This manuscript represents the neater type of these manuscripts containing collections of commentaries. Some small flourishes occur. The script is quicker and cheaper than the higher grades of gothic scripts but is however practical and neat. Charter and cursive scripts were indeed developed for this reason.[75] The use of more than one colour of ink is quite normal; however the use of expensive inks is rare.

Oxford, Balliol College 313. Several small English hands, with capitals in blue flourished in red, except towards the end, where they are in red and blue alternately.[76] Again neat but

quick and cheap script and some use of decoration but this is moderate.

Oxford, Bodleian Library, Digby 55. English cursive hand. "The nature of the text presupposes a university scribe...Typical example of the cursive handwriting found in university books at this time."[77] Again in this manuscript modest decoration was intended but never fulfilled, for only the titles at the top of the pages were completed.[78] Again it appears that this was to save money. The script again reflects consideration for time, space and money.

B.N. lat. 14714. Lacombe's phrase *sed nullo modo ornavit*[79] in describing this manuscript says much about its appearance. No effort was made at all to beautify it. This was then a relatively cheap manuscript to produce. Again this seems much more at home in the universities where at the time there was no money to undertake an expensive manuscript.

Camb., Peterhouse 143. The script is gothic bookhand highly abbreviated, with small flourished capitals. Titles sometimes appear in one colour or two. Explicits sometimes are seen in higher grade *gothica textualis* or *rotunda* script. The script and small flourished capitals are common in these manuscripts as moderate decoration. It is interesting to see that the explicits are in a higher grade script. This improves the manuscript's appearance and makes locating a text easier; however the text written in this script is obviously a very small amount and cannot have added to its cost considerably.

Wellcome Historical Medical Library 3 This text is in a highly abbreviated gothic bookhand A few initials, paragraph marks, incipits and marginal notes in red.[80] It has small flourished capitals, however most are left empty.

Other collections of commentaries not associated with, but contemporary to, Adam are of the same kind. Two examples are:

British Library, Arundel 344. ff.40-65v only. No decoration of any sort. Messy bookhand highly abbreviated.

Cambridge, Peterhouse 102. 1r-23v only. Ornate capitals though small and not elaborately flourished. Script corrupt bookhand/cursive.

From these descriptions it is clear that much more effort, resources and importantly money went into the production of the *Corpus vetustius* manuscripts than the manuscripts containing collections of commentaries. This suggests strongly that the *Corpus vetustius* were sponsored by those who did have money, the great religious houses which are known to have spent great sums on ecclesiastical texts. It must be remembered that the universities, at the time of the composition of all these manuscripts, were not the rich powerful institutions that they later became.

The commentaries written by Adam of Buckfield

It is clear that Adam commented widely on the works contained in the *Corpus vetustius*. We have seen that Thomson sees Adam as an early, perhaps the earliest, systematic commentator on the physical corpus of Aristotle.[81] Callus tells us that "Buckfield expounded the whole '*Corpus aristotelicum vetustius*".[82] Callus goes on:

> His works, called in the manuscripts *notulae*, or *glosae*, are commentaries on Aristotle and, with the exception of the *Organon*, the *De animalibus*,[83] and the *Ethics*, cover the whole Aristotelian corpus then known. Moreover he commented on the Pseudo-Aristotelian *De vegetabilibus* or *De plantis*, the *De differencia spiritus et anime* of Costa ben Luca, and on the *De Caelo et Mundo* of Avicenna, a work which appears to be quite unique.[84]

Adam's significance, then, is not only as an early commentator but also as someone who commented on the whole body of Aristotelian natural works including the important *De*

anima, his commentary on which may have been the first in Oxford. The early date of his commentaries is of equal significance in the development of Oxford natural philosophy.

The extant known commentaries are on the following Aristotelian and pseudo-Aristotelian texts; *De physica, De anima, De generatione et corruptione, Meteora, De differentia spiritus et anime, De morte et vita/De longitudine et brevitate vite, De memoria et reminiscentia, De sensu et sensato, De sompno et vigilia, De plantis/De vegetabilibus, De celo et mundo, De causis*, and the new and old *Metaphysics*. These appear in the manuscripts containing collections of commentaries or as whole marginal commentaries in the *Corpus vetustius* manuscripts. This list of his commentaries mirrors the texts of the *Corpus vetustius*.

Some commentaries appear far more frequently than others, which may reflect demand for commentaries, the more popular being the ones whch were considered of most use. However there is no way of knowing how many copies of Adam of Buckfield's commentaries were made and consequently what proportion survive. Indeed it seems likely that there are commentaries as yet unidentified that can be attributed to Adam of Buckfield, especially in the margins of continental copies of the *Corpus vetustius* manuscripts.

Adam's incipits

Incipits can be useful in identifying Adam's commentaries. However it appears that some commentaries that have the same text have different incipits, and this can confuse. These differences may have occured in the reading and copying of the text. In the following list the reading of the text is given, and where this seems to be corrupt the correct reading is given underlined in angled brackets.

***De plantis*. 1.** *In principio libri merhilorum[sic] <methalorum?> alter se tractaturum demmemlibus[sic] <de mineralibus?> et eciam de aliis que generantur super terram ut*

eciam de plantis et animalibus et de suis partibus sermone universali et particularis in libro autem merhorum[sic] <metheororum?>. Wellcome Historical Medical Library 3, fols 133rb-141va.

2. *Quoniam in primo libro (principio libri) metheorum promisit Aristoteles...* Adam Bocfeld(?), comm. *De plantis*: Florence, Biblioteca. Nazionale Centrale B.5.256, c13.[85]

De differentia spiritus et anime

3. ***Interrogasti me et cetera.*** *Cum determinatum sit superius*[86] *de anima secundum se et de operacionibus anime scilicet in libro de anima et in libris subalternatis*[87] *et quia diversitas operacionum ipsius anime sequitur ad diversitatem, instrumentorum mediantibus quibus operatur ipsa anima. Imo simul determinavit aristotiles naturam instrumentorum.* Camb., Peterhouse 143, fols 121ra-122rb.

De celo et mundo

4. *In libro precedenti qui intitulatur de naturali (physico) auditu...*

Adam de Bocfeld, comm. *De celo et mundo*: BAV, Urb. lat. 206, before 1253. fols 104r-183r mg; FL, Bml, Pl. XIII, sin.7 (Santa Croce), late c13, fols 1r-74r; Aristoteles Latinus 1368, 1810; Grabmann (1928), 48; Scholastik XI, 204, item 2.[88]

De physica

5. *Cum in libro phisicorum determinatum..*

Galfridus de Aspal sive de Haspal, comm. in Aristotelis libros I-II *De generatione et corruptione*: Biblioteca Apostolica Vaticana 817A, c13-14, fols (54v)-62v; Adam of Bochfeld, Cambridge, Gonville and Caius 367 (589), c13 fols 102v-111v; Scholastik XI, 206; anon. Bruges 513, c13-14, fols 130r-137r.[89]

6. *Naturalis philosophie subiectum est corpus mobile...*

Adam Bocfeld, *sententia in Physica*: *Medievalia et Humanistica* XII, 29; *Glosse in lib.*

physicorum: Venice, Biblio. Marciana, fondo antico 252 (XII,40), c15 fols 68-163.[90]

7. *Iste liber dividitur in duas partes prima divisione in prohemium...*

Adam de Bouchermefort, comm. *Physica*: Grabmann (1936), 161, 176; Pelster, Scholastik XI (1936), 204, item I.[91]

8. *Qualiter liber totalis prima divisione...*

Adam Bouchermefort, comm. super libris octo physicorum: **Venice, Biblioteca Marciana VI i(x,61)**, c14, fols 53-130.[92]

De generatione et corruptione

9. *Cum sit determinatum in libro phisicorum....*

Adam de Bocfelde, comm. *De generatione et corruptione*: Grabmann (1936), 174; anon: BAV, Urb. lat.206, c13, fols 184r-209r; Aristotles Latinus 1810.[93]

Metaphysics

10. *Supposito ut vult Avicenna et etiam Algazel quod subiectum...*

Adam de Bocfelde, comm. Metaphysics: Grabmann (1936), 174; 148-153; **Oxf., Balliol 313**, c14, fols 241-279v[94]; anon. Padua XIX.IV. 416, c13, fols 1r-51r; Cambridge, Gonville and Caius 367, c14, fols 164r-258vb.[95]

Meteora

11. *In hoc libro est intentio de corpore mobili contracto...* Adam de Bocfeld, comm. *Meteoris* (old tr): FL, Bml, Pl. XIII, sin.7 (Santa Croce), c13, fols 194-247r; Arist. Lat. 1368; Grabmann (1936), 150-3.[96]

12. *Incipiamus igitur a galaxia quoniam fit in loco alto...* Adam de Bocfelde, *Notabilia super libros meteor.* Oxford, Bodleian Laudian Miscellaneous 527, c14, fols 115ra-123rb; Isis 46 (1955), 359-60.[97]

13. *Intentio est in hoc libro de corpore mobili contracto* [very similar incipit to 5]

Adam de Bocfeld, comm. Meteor.: Grabmann (1936), 174; anon Oxf. Bod. Laud. Misc. 527, fols 115ra-123rb.[98]

14. *Intentio in hoc libro corpore mobili...*

Adam de Bocefeld, *Notulae, Aristot., meteorum lib. I-IV:* Biblioteca Apostolica Vaticana, Urbin lat.206, fols 210r-256v (Scholastik Xi , 204, item 33).[99]

15. *Intentio in hoc libro est corpore mobili...*

Adam de Bocefeld, *Notulae, Arist., meteorum lib. I-IV*: BAV, Urb. lat. 206, fols 219r-256v (Scholastik XI, 204, item3) Adam de Bouchermefort[100]

16. *Nostra in hoc (libro) intentio de corpore nobili (mobili?) contracto...*

Adam of Bockingfeld, comm. *meteorologica*: Grabmann (1936), 148. See 'intentio in hoc libro est de corpore...'.[101]

De sensu et sensato

17. *Cum intentio physici (philosophi) secundum quod philosophus (phisicus) est...*

A. de Bocfelde, *De sensu et sensato*: Oxf., Balliol 313, c13, fols 130-(143); Adam de Bockinfeld, comm. *De sensu et sensato*: Grabmann, (1936), 166; Pelster, Scholatik XI (1936), 204; prol. pr p.208.[102]

De somno et vigilia

18. *Quoniam autem scientia tradita...* (Adam de Bocfelde), comm. *De somno et vigilia*: B.N. 14714, fol 217(H).[103]

19. *Quoniam scientia tradita in libro de sensu et sensato...*

Adam de Bocfelde, comm. *De somno et vigilia*: **Oxf., Balliol 313**, c14, fols 143-157v; Russell, 2.[104]

20. *In precedenti libro determinavit auctor de quibusdam proprietatibus* ...Adam, comm. *de sompno*: Erlangen , Uni. 197 (Irm. 528), c13, fols 146r-152v; anon. Grabmann (1928), 64.[105]

De anima

21. *Intentio est in hoc libro de anima circa quam in principio est...*

Adam von Bockingfeld, comm. de *De anima*: Grabmann (1936), 161,163; Pelster, Scholastik XI (1936), 204.[106]

22. *In hoc libro est intentio de anima...*

comm. Arist., *De anima*: Bodleian Canon Miscellaneous 322, c14, 64f: assigned to Adam de Bouchermefort: Grabmann (1936), 175; *Revue Néo-scolastique* (later *Revue philosophique de Louvain*), 42 (1939), 433-38.[107]

23. *Ratiocinatio est in hoc libro de anima...*

Adam Bouchermefort, comm. *De anima*: Venice, Biblioteca Marciana VI.i(X,61), c14c, fols 130-161.[108]

De causis

24. *Sicut scribitur in Thimeo Platonis...*

Adam de Bouchermefort, comm. *Liber de causis*: Grabmann (1936), 176-177.[109]

De memoria et reminiscentia

25. *In precedenti libro qui est...*

Adam de Bouchermefort(?), comm. *De memoria et reminiscentia*: Grabmann (1936), 177.[1]

De morte et vite

26. *In precedentibus libris subalternatis libro de anima...* Adam, comm. *de morte et vite*:

Erlangen, Uni. 197 (Irm. 528), c13, fols 152v-154r; anon.; Grabmann (1928), 64.[111] This incipit matches Wellcome Historical Medical Library 3, fol 64va.

Other Medieval Commentators found in codice with Adam of Buckfield

In the manuscripts containing collections of commentaries, Adam's commentaries are found together with other commentaries by other medieval authors. This may give some indication of why Adam's commentaries are included in these manuscripts. Adam's commentaries are found together with later authors such as Aquinas. It can be argued that he appears with authors from the next generation when it might be thought that his works had been superseded by these later authors, because some of his works retained their appeal. This must attest to his usefulness for medieval university teaching. However there are some problems inherent in assessing the information available in the codices containing collections of commentaries. We first have to decide whether these collections were made accidentally or with a clear original purpose in mind. Certainly some of the manuscripts containing collections are accidental compilations with no academic purpose in mind. Some of the manuscripts containing collections are the result of a later bundling together of manuscripts similar in size and do not represent thirteenth-century compilations for thirteeth-century purposes *in codice*. However most of the manuscripts containing commentaries are not arbitary collections in this sense but were compiled for a specific purpose. This purpose was teaching. Many of the texts in these manuscripts are written by the same scribe and can be shown codicologically to be an intended compilation. It seems that these collections of commentaries were used by teaching masters in composing their lectures and disputations. They reflect the commentaries which were considered of best use for university teaching.

The other authors that appear in the collections of commentaries may also give us an indication as to whose commentaries were used in the formation of glosses in the *Corpus vetustius* manuscripts Further research in this area is needed and is likely to be revealing.

The following is a list of authors and their commentaries which are found in collections containing Adam's commentaries.

Albert the Great:

Leipzig, Universitätsbibl. 1406.

Super quartum Meteororum,

Alexander ?(Nequam):

B.N. lat. 14714. *De sensu.*

Egidius Romanus (Giles of Rome):

Madrid, Biblioteca Universitaria, cod. 124 (117. 38). *de generacione.*

Camb., Peterhouse 143. *De bona fortuna.* Leipzig, Universitätsbibl. 1405: B.N. lat. 14714. *Super De generacione.*

James of Douai:

Leip., Universitätsbibl. 1405

John Pecham:

Leipzig, Universitätsbibl. 1406.

De sphaera.

Nicolas of Amiens:

New Haven, Y U, MHL 12.

De articulis fidei.

Peter of Auvergne:

Camb., Peterhouse 143.

De motu animalium.

Leip., Universitätsbibl. 1405:

B.N. lat. 14714.

Super De iuventute, Super De morte et vite, Super De motu animalium.

Salamanaca, Biblioteca de la Universidad 2363 (ex Madrid, Biblioteca Real 471)

Super de somno et vigilia, Super de iuventute (with De respiracione)

Peter of Spain:

Cracow, Bibliotheka Jagiellonska 726.

De anima.

Thomas Aquinas:

FL, Bib. nazionale B. 5. 256 (Santa Croce).

Five works.

Cracow, Biblioteka Jagiellonska 763 (AA V 29)

Metaphysics.

Camb., Peterhouse 143.

De sompno et vigilia.

Leip., Universitätsbibl. 1405.

Leip., Universitätsbibl. 1406.

Super de anima, Super de sensu, Super de memoria.

B.N. lat. 14714.

Super De sensu, Super De Memoria.

Salamanaca, Bib. de la Uni. 2363 (ex Madrid, Biblioteca Real 471). *Super De memoria.*

In **El Escorial, Bib. del Monast. f.II.8**, *super de sompno* is by Adam but attributed to Aquinas. Bataillon[112] says that Thomas did not produce a commentary for this text. An unknown commentary may have easily been attributed to this most famous author especially when it appeared alongside authentic commentaries by Aquinas:

> The spread of the MSS, both as to origin and present location, is wide, and it is more than likely that, with further investigation, at least as many more copies of these commentaries will come to light as are here listed. Adam has only relatively recently received any concentrated attention by a few scholars, and the discoveries have

generally been made in the course of other researches.[113]

Researches by Grabmann, Salman, Pelster and Thomson have identified a number of manuscripts in many libraries, thus showing Buckfield's importance in the development and growth of thirteenth-century natural philosophy in Oxford.

Thomson says of the manuscripts known to him:

> They are exclusively - so far as I have examined them, and I have seen 31 of the 35 - of the thirteenth century, and predominantly of French provenance. Whether the Continental copies were copied by foreign students resident in Oxford during Adam's academic lifetime there, or whether they were copied on the Continent from exemplaria brought over by transient Oxford scholars is not clear.[114]

It is quite possible, if not probable, that both the situations described by Thomson were spreading Adam's commentaries from Oxford to Paris, but this does not answer the question why the majority of Adam's manuscripts seem to be of French provenance. Thomson says there is no evidence as yet that Adam taught in Paris,[115] although had he done so, this would explain the popularity of his writings there. But if he did not teach then why was he so used? I think this reflects Oxford's lead over Paris in natural philosophy at the time. Adam's writings and other Oxford works seem to have been desired by French scholars. Hence the provenance of the majority of manuscripts.

Indeed Adam's commentaries are found widely over Europe,[116] suggesting they were probably distributed by those attending Paris university.

Adam appears with many names in the manuscripts, most of which are European corruptions, mispellings and miscopyings of his name. Mistakes by European scribes

unfamiliar with English names such as Buckfield can easily be conceived. Adam appears under the following names; Adam Anglicus, Adam de bozefeno, Adam de Bocfeld, Bochermefort, Bouchermefort, de Butrefeld,[117] de Bochermefore, Bochenaunfonte, Bouchermefore, Buchiphiz,[118] de Bocfelde, A. de bochekinefore. The wide variety of names suggests widespread copying by non-English scribes. This is an indication of the European use of Adam of Buckfield's commentaries.

The duration of the popularity of Adam of Buckfield's commentaries

Manuscript evidence suggests that Adam's commentaries were rarely copied after 1300. The majority of the manuscripts in which his work appears have been dated to thirteenth century, and a very small number to the fourteenth. In an assessement of Adam's influence we must explain the brief duration of his popularity. It appears that there are three main reasons why Adam's commentaries were no longer copied or used in the fourteenth century; new translations, the appearance of changes in philosophical taste and the end of the *Corpus vetustius* tradition in which Adam's commentaries were used.

New translations

The Latin translations of Aristotle that the medieval scholars had to work with were often hard to understand, obscure in both text and meaning. Not only were there inherent problems in understanding the complexity of what Aristotle said but also the texts had become corrupt. They had undergone translation from the Greek, sometimes via Syriac to the Arabic, and then to the Latin. The text had degenerated in copying, resulting in some loss of meaning. Indeed, much of the teaching and commentary in the medieval universities had to deal with these textual and intellectual problems There was a demand for commentators to help exegesis of text. The Arabic authors Avicenna and Averroes proved

very useful for the *libri naturales*.[119] However the expositions of these commentators too suffered in translation from the Arabic. Before the text itself can be considered a reasonable reading of it must be established and agreed, and such textual problem-solving can be seen in the interlinear and inner-marginal glosses in the manuscripts containing the *Corpus vetustius* (see Chapter 5).

But ultimately the Arabic-Latin translation was seen as inadequate, and a more satisfactory reading of the text was desirable. Translations from the Greek were preferable, and this became increasingly possible after 1204 when the fourth crusade had been diverted against Byzantium.[120]

This search for clearer texts of the physical works is shown by Robert Grosseteste who made clearer translations of texts already known direct from the Greek.[121] The most important translator was William Moerbeke, the friend of Aquinas,[122] who made new translations direct from the Greek in the third quarter of the thirteenth century. "Thus of the treatises on natural science, the Physics, the *de Caelo et Mundo*, the *de Generatione* and the *Meteora* were all translated from the Arabic between 1170 and 1180 by Gerard of Cremona, to be re-translated from the Greek almost a century later by Moerbeke."[123]

Moerbeke made these translations after Adam of Buckfield wrote his commentaries. New translations meant a new Latin text of the Aristotelian works. Adam's commentaries rely heavily on *lemmata* (the citation of an identifying phrase of the text he is commenting upon). If this text changes, the *lemmata* would therefore be useless. Adam's *lemmata* would be obsolete after a new translation had been made. If Adam's *lemmata* were obsolete then so were his commentaries. His commentaries became unuseable to the new Latin texts. None of Adam's *lemmata* could be recognised in the new text and his exposition could not be used.

Philosophical changes

Along with competition from new translations that made Adam's commentaries redundant, there were subsequent masters writing commentaries on the same text and new

interpretations and development in natural philosophy.

> Any explanation of this [the end of Adam's utility] must be sought in a textual study of his commentaries against a background of the trends of philosophic interest at the end of the thirteenth century.[124]

In the words of Bataillon:

> Afterwards there came new commentaries by Giles of Rome or Peter of Auvergne,[[125]] then by Burley and other *moderni expositores*, and the old master ceased to be copied, unless some accident, as in the Escorial manuscript, gave him a more conspicuous, if apocryphal, identity.[126]

Finally Thomson says that

> The sudden cessation of his influence and the copying of his works at the end of the thirteenth century is, of itself, of no little interest. It is obviously to be related to the shift that took place in the nature of the problems that absorbed the mind of the academic community. The commentaries of Albertus Magnus and Thomas Aquinas superseded Adam, and relegated him to obscurity.[127]

Thomson continues discussing Adam of Buckfield:

> The importance of a given writer to his contemporaries and the persistence of his influence for the Middle Ages are rather accurately indicated by the number of copies made of his works and their dispersion over Europe. If furthermore, we note

> that he ceases to be recopied at a given period, as is the case with Bocfeld, the obvious conclusion may be drawn as to the waning of his influence and the increasing irrelevance of his teaching to the new age. Much of the evidence in this case, as to authenticity and the identity of the author, is palaeographical. We have, therefore, an additional reason for a picture of the MS tradition as nearly complete as possible.[128]

However Adam of Buckfield seems to appear in early fourteenth-century manuscripts:

> It seems that Adam's Commentaries maintained a certain popularity as explanations of those works of Aristotle for which St. Thomas provided only an incomplete exposition (as for the *De generacione*) or none at all (chiefly for the *De somno* and the *De differencia*). The case of the Metaphysics is different: I am inclined to think that in some universities the official text explained in the Arts Faculty remained the *Metaphysica Nova,* translated from the Arabic, rather a long time after the completion of Moerbeke's version. So the old commentary by Adam retained its interest.[129]

This may be seen in the codices in which Adam of Buckfield is found. As we have seen he is often found alongside later commentators such as Aquinas.[130] This aspect of Adam's extant manuscripts is very important. It should be noted that some of Adam's commentaries survive a new wave of commentary by Albertus Magnus and Aquinas. Therefore Adam's commentaries on certain texts, which had not been fully commented on by Aquinas and Albertus, were still useful. If Aquinas had treated those areas better than Adam had done, then Adam's surviving extant works would have been far fewer Another reason for their survival was because they were *in codice* with later works of later masters.

According to Callus, "A fairly considerable time often elapsed between the translation of a treatise and its diffusion."[131] Maybe the new translations and the new commentaries were not at first widely available.

The Corpus vetustius

The *Corpus vetustius* was a collection that reflected university teaching in the thirteenth century. However in the fourteenth century a reshuffling of these books took place. This may reflect changes in university teaching and the priority given to certain books. The collection now became the *Corpus recentius*. This change may well have furthered Adam's irrelevance into the fourteenth century. Some texts received new translations and so the old translations, on which Adam's commentaries depended, were dropped from the *Corpus*, such as the *Physica*, *De celo et mundo*, *De generatione*, *Meteora*, *De anima*, *De sompno*, *De sensu* and the *De longitudine*. The texts *De plantis* and *De differentia*, on both of which Adam commented, were dropped altogether. *De causis* remained the same. There were several additions to the *corpus* on which Adam had not written commentaries: *Metaphysica* in a new translation, *De motu animalium*, *De iuventute*, *De respiratione*, *Phisionomia*, *De coloribus*, *De lineis indivisibilibus*, *De Nilo*, *De progressu animalium*, *De proprietatibus elementorum*, *De mundo*, *Epistola ad Alexandrum*, *Vita Aristotilis*, *De pomo*, *De intelligencia*, *De bona fortuna*.

The use of Adam's commentaries in marginal glosses or postils of the Corpus vetustius manuscripts

European spread of manuscripts

It seems as though the use of Adam's commentaries in the manuscripts of the *Corpus vetustius* spread widely over Europe in the half century that followed the composition of his works. His works appear in many European hands, showing he was copied by many

different nationalities. This is no real proof as to where the codices were written or annotated, however it would seem to suggest this happened in many major *studia* around Europe. It is worth taking a closer look at some manuscripts under consideration, for evidence of this international character. Not all the manuscripts containing Adam's work are included due to lack of detailed descriptions in catalogues.

BAV, Urb. lat. 206 is good evidence of the spread of these codices in a European context. This manuscript seems to have been written by an English scribe, probably in England.[132] However the marginal commentaries of Adam and the glosses appear in English, French and Italian hands, and appear to have been written at a later date.[133] The glosses appear to be mainly English and thirteenth century and were probably added soon after the central text was written. So the codex suggests that Adam's commentaries were added later, possibly in Europe, and it would seem probable that this happened at a European *studium generale*. This strongly suggests Adam's commentaries were used abroad.

Bologna, Bib. uni. 1180 (2344) contains marginal commentaries by Adam of Buckfield written in several contemporary French hands.[134] However the main text seems to be in an English hand, *ab uno librario anglico.*[135] Again this codex seems to have originated in England and may have been annotated by Frenchmen in England or abroad. The codex was once in a Bolognese monastic collection.[136] Adam's name as it appears in this manuscript reflects the fact that continental scribes were using Adam, for he is called *Magistrum Anglicum*, *magistro A. de Bochemefore* and *A. de bochekinefore*. These can only be European misreadings and misunderstandings of a very English sounding name. We know this codex has travelled also; *Liber fuit olim, monasterii Salvatoris bononiensis No. 10245. f.3r et in Bibl. Nat. Parisiensem saec. XIX delatus.*[137]

FL, Bml Pl. XIII, sin.7 (Santa Croce). This manuscript is given as having English provenance.[138] However it found its way to Florence, for it is inscribed in a later hand *liber*

conventus S. Crucis de Florentia ordinis minorum. On the back is written; *iste liber est Fratris Calini Num.541.*[139] It contains Adam's commentaries on the *De celo et mundo* and on the *De meteoris.*

B.N., lat. 6319 is of French provenance;[140] it contains marginal commentaries by Adam, which with the rest of the script appears to be in Italian hands: *Codex pluribus manibus italicis.*[141] Adam may here have been copied by Italians in Paris where we know his teaching was used.[142] The important point is that Adam was used by an international assortment of scholars.

New Haven, YU, MHL 12. "The text, written by a single French scribe in a Gothic bookhand of the thirteenth century, is produced in double columns on fine white vellum."[143] "What may be surmised regarding the dating of the codex, both from the script and the style of the decoration, is that it was produced at Paris in the third quarter of the thirteenth century."[144] Lacombe agrees that this is in a French hand, *Codex ab uno, ut videtur, librario gallico.*[145]

The provenance and date of the manuscripts of the Corpus vetustius

If we look at the provenance of the *Corpus vetustius* associated with Adam manuscripts we see they and their contents are international. Six of the manuscripts of the *Corpus vetustius* are of English provenance.

BAV, Urb. lat. 206[146]

FL, Bml Pl. XIII, sin. 7 (Santa Croce)[147]

Oxf., Corpus Christi College 111[148]

Camb., Gonville and Caius College 506/384. At the end of the physics is a note; *correctus a magistro G. de Haspal. Magister Gaufridus de aspal, canonicus ecclesiae S. Pauli Londiniensis, fiut quondam conscolaris Joannis Peckham, archiepiscopi Cantuariensis.*[149] So it would seem this manuscript is of English provenance.

Durham, DCL C.III.17. Dean and chapter library. Written in a thirteenth- or fourteenth-century English cursive on a flyleaf is *Liber fratris Iohannis de Wessyngton monachi Dunelmensis*. This manuscript was probably annotated and glossed in Oxford, and was to be taken back to Durham to be used there, possibly in teaching. The glosses are in an easily distinguishable English cursive hand. Durham may have sponsored young men's education in Oxford and also codices such as these. Durham, like Worcester or Gloucester cathedrals, had cloistered canons and daughter houses in Oxford (hence Worcester College, Durham College). In many ways this seems a manuscript produced in circumstances similar to **BL, Royal 12 G III**, annotated by Henry of Rainham. However, in the inscription in the Durham manuscript John of Wessington is described as 'brother' (*fratris*) and 'monk' (*monachi*). At any rate this codex was probably destined for Durham cathedral and therefore this is likely to be its provenance.

BL, Royal 12 G III has the inscription *volumen de naturalibus aristotelis de Claustro Roffensi. Per Johannem Priorem Roffensem hunc librum quicunque alienaverit ab hoc claustro, alienatum celaverit, vel hunc titulum in fraudem deleverit; dampnacionem incurrit Anathematis lati singulis annis a Priore et toto cetu capituli Roffensis.* The manuscript was clearly the property of Rochester Abbey. Since it contains the 'Oxford gloss' it was clearly annotated in Oxford. An English provenance is appropriate for this manuscript.

Three are three manuscripts of French provenance

B.N. lat. 6322[150] *Codex olim Colbertinus 2932.*[151]; **B.N. lat. 6319**[152]; **New Haven, YU MHL 12**. Noone has already been quoted stating that this codex is Parisian from the third quarter of the thirteenth century.[153] *Textus a correctore sedulo emendatus. In antefolio nomen possessoris: Arnoldus de Machlinia et in verso eiusdem tabula rerum: ibique manu eiusdem temporis: isti libri naturales deputati sunt ad usum fratris Nicolay de Probsdorf lectoris et sunt empti pro II marcis argenti.*[154] Originating in Paris, it seems to have been for religious use. Its early provenance seems to be Parisian.

There are two manuscripts with Italian provenance: **Bologna, Bib. uni. 1180 (2344).** *Liber olim fuit, monasteriis Salvatoris bononiensis no 10245.*[155]

Monte Cassino, Bib. dell'Abbazia 8 VV. This is the famous Abbey of Monte Cassino.

Two other manuscripts give good hints as to their provenance:

B.N. lat. 12953. *Codex olim sancti Mauri Fossatensis, 1077, deinde Sancti Germani de Pratis 604.*[156] This manuscript has religious connections probably suggesting its origins. However we do not know its early provenance.

Rome, Convento de Santa Maria sopra Minerva, without shelfmark. On f.321r is written the note: *Liber Magistri Leonardi de Perusio ordinis predicatorum (hic leonardus est leonardus de Mansuetis qui fuit etiam generalis minister ordinis praedicatorum.*[157] Again religious connections are apparent. However early history is unknown.

The dating of these manuscripts is important in determining who and what were being taught at the centres of education at which these manuscripts were being glossed. There are however problems with the correct dating of a manuscript. Many catalogues are old and their evidence is not always accurate.

Fifteen of the eighteen manuscripts so far considered are described as being thirteenth century, although these vary within that century. Of these, seven have no more precise date, four are described as being from the mid thirteenth century, closer to the time of Adam's actual teaching and writing. Three are described as being from the last quarter or end of the thirteenth century. Two are described as being thirteenth or fourteenth century by different catalogues, and finally two are described as being fourteenth-century alone. Some of these datings are more accurate than others. Some manuscripts are more easily dated. However it is clear that the main body of manuscripts is thirteenth-century. This is not surprising considering the fate of the *Corpus vetustius.* However it is possible that one or two of these manuscripts were fourteenth century, for example **Monte Cassino, Bib. dell'Abbazia 8 VV**. This may mean, that, at a time when Adam's influence had gone in the

northern European universities, his work may have still been useful in the early fourteenth century in *studia* further removed from the Oxford natural philosophical scene. Such new translations of the *libri naturales* by Moerbeke, that were to supersede older texts, may not yet have been fully dispersed.

Manuscripts which contain whole commentaries

In some of the *Corpus vetustius* manuscripts we find whole commentaries, including those of Adam, written into the margins around the central text. They are listed below:

BAV Urbin. lat. 206. This manuscript has whole commentaries running alongside the central text for all but one of its books. The commentary on the *De celo* fols 104r-182v is Adam's, as are the commentary on the *De generacione et corruptione* fols 184r-209r, the commentary on the *De metheora* fols 210r-256v, the commentary on *De anima* fols 258r-298v and the commentary on *De memoria et reminiscentia* fols 299r-304r. (This also has St. Thomas' commentary on *De physica*).

Bologna, Bib. uni. 1180 (2344). This manuscript also has full commentaries running alongside the central text. fols 3a-22a *Sentencia de generacione secundum Magistrum Adam Anglicum*; fols 24a-53b *Sentencia super hunc librum de anima a Magistro A. de Bochemefore tradiia*; fols 54a-56b *Sentencia de memoria et reminiscentia*, unascribed; fols 57b-126a *notule* on Aristotle's *Physica*, here unascribed; fols 176a-204b, *sentencia in Metaphysica nova*, here unascribed; fols 334a-342b, a commentary on the *De Causis*, here unascribed.[158]

FL, Bml Pl. XIII, sin.7 (Santa Croce). Contains as continuous marginal commentaries: fols1a-73b *raciones Magistri A. super librum de celo et mundo*, ascribed to Bocfeld in Rome, San Isidoro (Franciscan College) I/10; fols 76a-98b a commentary in *Metaphysica vetus* unascribed; fols 99a-192b Bocfeld's commentary in *Metaphysica nova*, here unascribed but ascribed in Oxf., Balliol College 241 ; fols 194a-247a Bocfeld's commentary *in Meteora*, here unascribed.

Aristoteles textus grandioribus litteris a commentariorum[sic] *distinguitur qui totos margines occupant, et praesertim M. Grabmann, Mittel. Geistesleben II pp.150-153 qui commentarios omnes quos liber continet magistro Adam de Bocfeld tribuit.*[159] Again we see the same pattern of marginal commentaries.

B.N. lat. 6319. Contains: fols 2a-40b a commentary on the Physics *cum scripto Ade* (in comtemporary *contenta*, fol 1a), the text as ascribed to 'bozefeno' in Padua, Biblioteca universitaria 2248, save that it is incomplete in the middle of Book VI; fols 113a-134a *scriptum magistri Ade super librum de anima*, here so unascribed, the text ascribed to 'Bochermefort' in Bologna, Bib. uni. 1180 (2344); fols 135a-152b, the commentary on the *De generacione et corrupcione*, here unascribed, but ascribed to 'Adam Anglicus' in Bologna, Bib. uni. 1180 (2344).[160]

B.N. lat. 6322. Contains fols 1a-44b the commentary on the Physics, unascribed.[161]

Bologna, Bib. Com. dell'Archiginnasio A.127. Contains fols 141r-164r (in margins) : *Super De generacione*, recension I, anonymous.[162] This codex also has glosses.

Monte Cassino, Bib. dell'Abbazia 8 VV. Contains: fols 385-448 (in margins): *Super De generacione*, recension I, anonymous; *commentaria, notae interlineares et marginales, correctiones diversarum manuum in marginibus occurrunt. Descriptio codicis amplior et accurata in Bibl. Casin. (I,p. 129-144) invenies.*[163]

These manuscripts reveal a process different to that in the ones containing fragments of commentaries. Here whole commentaries are found with or without accompanying gloss. This must suggest that these were annotated in differing teaching circumstances. We must ask ourselves whether this suggests a lack of systematic teaching of the text. Or possibly these manuscripts were annotated outside university teaching. We can almost certainly discount the idea that these texts represent lazy students who did not attend or did not bother to take proper glosses and 'cheated' by filling in with one commentary. The commentaries represent a large amount of material, and far more writing was done than for the glossed manscripts. Indeed a student under patronage for his education would surely

have been conscientious in his duty of annotating such an expensive and prized codex.

If it is to be believed that Oxford was influential in natural philosophy in the second half of the thirteenth century, then the popularity of Oxford commentators is not so surprising. If these manuscripts do, however, reflect university teaching (as one might expect) what sort of teaching would result in marginal commentary by only one author? Does this mean Adam's commentaries were the only ones available? This seems unlikely. Maybe Adam proved particularly useful for unpretentious and thorough analysis of the text. We have already read Noone's opinion of Adam.[164] Indeed the fact that many of his commentaries survive in marginal form in codices of the *Corpus vetustius* surely backs up Noone's opinion.[165] Also according to Thomson, "their [the commentaries'] very clarity and monotonously systematic formulae made them useful and usable".[166] Maybe Adam's commentaries were thought to be sufficient for teaching in *studia* that may not have had the advantage of Oxford's enthusiam for natural philosophy.

No systematic research has gone into the study of marginal glosses in the *Corpus vetustius* manuscripts, but they are a good source for the identification of many more commentaries by Adam of Buckfield and other authors:

> As these commentaries were very often copied without any attribution it is certain there are others as yet unidentified, especially in the margins of works of Aristotle. An investigation of the manuscripts of Aquinas for the purpose of the Leonine Edition has allowed us to encounter some of them, often mixed with St. Thomas' own commentaries.[167]

Manuscripts which contain fragments of commentaries

I have found evidence suggesting that Adam's works were used in teaching at Oxford

as reflected in the *Corpus vestustius*. Parts of Adam's commentary on the *De differentia spiritus et anima* appear in the marginal glosses of **Durham DCL C.111.17**. Adam is quoted directly in the gloss. It is my opinion that in these manuscripts containing the *texts* of the *corpus vestustius*, like **Durham DCL C.111.17**, and glosses on those texts were the product of university teaching. This is because the marginal glosses contain quotations from commentaries written about the texts themselves, *by various authors,* not by one author. For example in *De plantis* in **Durham DCL C.111.17** there appear quotations from Adam, Averroes and Alfred of Shareshill. Undoubtedly other authors are quoted too but it would be an undertaking outside the purposes of this thesis to identify them (a list of identifiable authors used in the glosses for the *De differentia* is given in Chapter 4). The purpose here is to illuminate Adam's teaching.

Indeed the glosses found in manuscripts from around the same date and university (the ones I am examining are all written in English cursive, suggesting Oxford) show great similarity, suggesting that not only were there specific texts to be studied but also there were certain agreed commentators to be used by a teacher in the teaching of those texts. Further research into the glosses accompanying the *Corpus vetustius* will reveal more manuscripts containing fragments of Adam of Buckfield's commentaries. Below is the list of interesting *Corpus vetustius* manuscripts:

Florence, Biblioteca mediceo-laurenziana I. IV. 22 (San Marco). *In marginibus et in interlineis totius codicis (si excipias f.323r 349r) glossae ac notulae plurimae habentur, et magni quidem momenti; glossae ad celo incipiunt. secundum rectum ordinem, liber iste qui intitulatur de celo et mundo qui etiam est de corpore mobili contracto ... ideoque promanat ex comentario Adami de Bocfeld. cfr. Grabmann Mittelalt. Geistesleben II 173.*[168] Lacombe mentions that there are many glosses and *notulae*, and that Adam's commentary on *De celo et mundo* is used.

Munich, Staatsbib. Clm. 2604. Contains mostly the texts of Aristotle's physical works, but on fol 74b a marginal fragment of the beginning of Bocfeld's comment on the *De celo et*

mundo.[169]

Oxf., Corpus Christi College 111 is a copy of the *Corpus vetustius* with many marginal and interlinear glosses. According to Thomson the Physics fol 1r-119v and the *De anima* fols 252r-294v have many marginal glosses from Adam's commentaries.[170]

Camb., Gonville and Caius College 506/384. This codex has many marginal notes. *Glossae frequentes tam marginales quam interlineares manu contemporanea f.215r-258v et 261v-296r exceptis, quae glossas manu saec. XV exaratus praebent. Emmendationes rariores; in fine physicorum legitur nota; correctus a magistro G. de Haspal. Magister Gaufridus <<de aspal>>, canonicus ecclesiae S. Pauli Londiniensis, fuit <<quondam conscolaris>> Joannis Peckham, archiepiscopi Cantuariensis.*[171]

Madrid, Biblioteca Nacional 1067. This codex seems to have a marginal fragment of Adam's commentary on *De anima*. It is, however, not clear whether this is in gloss form. However there are the usual glosses in other parts of the manuscript, *Index lib. physicorum, en I. del. s. XIV; abundantes glosa marginales e interlineales y al v. de la hoja de guarda posterior.*[172] Also from Lacombe's catalogue, *Emmendationes et glossae nonnullae in physica et de generatione.*[173]

Oxf., Corpus Christi College 114 fols 5r-76rb (in margins): *Super Physicam* (short glosses). fols 235r-237r (in margins): *Super De longitudine* (short glosses), both anonymous. These are also asserted to be Adam's by Lacombe.[174] *Glossae permultae interlineares et marginales aliam translationem et ad Metheora Alvredum proferunt. Emmendationes nullae.*[175]

B.N. lat. 12953. fols 311r-314v: *Super De memoria*, rec.I (some glosses only) fols 315r-317r: *Super De plantis* (Long glosses, apparently the complete text but ending with ch.VI). *Emmendationes nullae; glossae frequentes in marginibus ad eas praeparatas.*[176]

Rome, Convento di Santa Maria sopra Minerva, without shelfmark. fols 55r-141v (in margins): *Super Metaphysicam novam*, anonymous.[177] Author attributes marginal glosses for *metaphysicam novam* to Adam.[178]

New Haven, YU, MHL 12. *Glossae passim in columnis ad eas excipiendas praeparatis colloctae.*[179]

Durham DCL C.III.17. I have found fragments of Adam's commentary on the *De differentia spiritus et anima* in marginal glosses accompanying the central text. It remains to be seen if fragments of Adam's commentaries are to be found in the glosses of the other books in this codex.

BL, Royal 12 G III. I have found fragments of Adam's commentaries in this codex in marginal gloss form. As above further work may reveal more glosses.

Glosses by Adam also appear in one copy of the *Corpus mixtum*. The *Corpus mixtum* is a collection of natural philosophical works similar to the *Corpus vetustius* and the *Corpus recentius*. This type of manuscript may well represent some stage in the development of the *Corpus vetustius* into the *Corpus recentius*. **Assisiensis Bibl. Communalis 283**. This a later collection of natural philosophical books. *Glossae in marginibus et in interlineis insunt permultae usque ad f.275, deinde nullae. Quae ad librum Physicorum pertinet fere omnes ex commentario Adae de Bouchermefort promanat: <<Expliciunt notule mgistri <Ad>e de Borese ...>s super libris <phi>sicorum Aristotelis (f.83v) de quo cfr. Grabmann Mittel Geist II p.147 et p.616.*[180] Fragments of Adam's commentaries may be found in glosses in other copies of the *Corpus mixtum*

This chapter has identified the two distinct types of manuscripts in which Adam's work is found. These are the collections of commentaries, in which commentaries by Adam are found alongside commentaries by other authors, and the copies of the *Corpus vetustius*, which contain Aristotelian texts, glosses and sometime commentaries. It is now time to take a closer look at the commentary by Adam under study in this thesis.

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1 . The number of extant codices containing the *Corpus Vetustius* is roughly one hundred. See Lacombe, *Pars Prior et Pars Posterior*.
2 . See Chapter 1.
3 . MSS: Munich, Staatsbibliothek Clm 2604, Oxford, Corpus Christi College 111; Oxford, Corpus

Christi College 114; New Haven, Yale University, Medical historical library 12; Durham C. III. 17; Royal 12 G III, Assisiensis Bibl. Communalis 283.
4 . MSS: Vatican Urbinat. Lat. 206; Bologna, Biblioteca universitaria 1180 (2344); Florence, Biblioteca mediceo-laurenziana Pl. XIII, sin.7 (Santa Croce); Paris, Bibliothèque nationale, fonds latin 6319; Paris, Bibliothèque nationale, fonds latin 6322.
5 . MSS: Bologna, Biblioteca Comunale dell'Archiginnasio A.127; Cambridge, Gonville and Caius College 506/384; Madrid, Biblioteca Nacional 1067; Paris, BibliothèqueNationale lat. 12953; Rome, Convento di Santa Maria sopra Minerva, without shelfmark.
6 . Bernard Bischoff, *Latin palaeography: antiquity to the middle ages*, trans. Dáibhí Ó Cróinín and David Ganz (Cambridge: Cambridge University Press, 1990), p. 14.
7 . See Chapter 1 for the stucture of medieval education.
8 . For a description of the *pecia* system see Graham Pollard, 'The *pecia* system in the medieval universities', in *Medieval Scribes, Manuscripts and Libraries*. Essays presented to N. R. Ker, ed. by M. B. Parkes, and Andrew G. Watson (London: Scolar, 1979), pp.145-161.
9 . Cambridge, Gonville and Caius College 506/384. *correctus a magistro G. de Haspal.*
10 . M. B. Parkes, 'The provision of books' in *The history of the university of Oxford*, II, pp.407-483 (p.448).
11 . Parkes, 'The provision...', pp.407-483 (p.446).
12 . Parkes, 'The provision...', pp.407-483 (p.451).
13 . Parkes, 'The provision...', pp.407-483 (p.431).
14 . R. K. French, 'Teaching Aristotle in the medieval English universities: *De plantis* and the physical *Glossa ordinaria*', *Physis (forthcoming 1998)*, 225-296 (p.236).
15 . Parkes, 'The provision...', pp.407-483 (p.446).
16 . Lacombe, *Pars Posterior*, pp.889-90 (no.1286).
17 . Lacombe, *Pars Posterior*, pp.940-1 (no.1368).
18 . Thomson, 'A further note...', 23-32 (p.27).
19 . 1230 the bull *Quo elongati* of Gregory IX.
20 . Lacombe, *Pars Prior*, pp.349-50 (no.237).
21 . Lacombe, *Pars Prior*, p.537 (no.625).
22 . Lacombe, *Pars Posterior*, p.1066 (no.1553).
23 . Lacombe, *Pars Prior*, p.251 (no.28).
24 . See Papal bull above.
25 . James A. Weisheipl, 'Science in the thirteenth century', in *The history of the University of Oxford*, I, pp.435-469 (p.463).
26 . Lacombe, *Pars Posterior*, pp.1204-5 (no.1810).
27 . Again refer to Papal bull above.
28 . Lacombe, *Pars Posterior*, p.1204-5 (no.1810).
29 . Parkes, 'The provision...', pp.407-483 (p.407).
30 . See Chapter 1.
31 . Thomson, 'A note on the works...', 55-87. Thomson, 'A further note...', 23-32. Thomson, 'An unnoticed ms...', 132-133.
32 . Bataillon, 35-39.
33 . Noone, 308-316.
34 . Lacombe, *Pars Posterior*, pp.1204-5 (no.1810).
35 . Lacombe, *Pars Posterior*, pp.940-1 (no.1368).
36 . Lacombe, *Pars Prior*, pp.511-2 (569).
37 . Lacombe, *Pars Posterior*, p 885 (no.1276).
38 . M. R. James, *A descriptive catalogue of the manuscripts in the libary of Gonville and Caius*

College, 2 vols (Cambridge: Cambridge University Press, 1908), II, pp.575-6.
39 . Lacombe, *Pars Prior*, pp.349-50 (no. 237).
40 . *Inventario General de Manuscritos de la Biblioteca nacional* (Madrid: Ministerio de educacion nacional, 1957), III, pp.283-4.
41 . Lacombe, *Pars Posterior*, p.832 (No. 1189).
42 . Lacombe, *Pars Posterior*, pp.905-6 (no.1308).
43 . Lacombe, *Pars Prior*, p.408-9 (no. 359).
44 . Lacombe, *Pars Prior*, p.537 (no.625).
45 . Lacombe, *Pars Prior*, p.251 (no.28).
46 . My description can be compared to Lacombe, *Pars Prior*, pp.387-8 (no.318).
47 . Lacombe, *Pars Prior*, pp.725-6 (no.1026).
48 . Lacombe, *Pars Prior*, pp.407-8. (no. 358).
49 . Lacombe, *Pars Prior*, pp.509-10 (no. 566).
50 . This is the usual script used. Professor De La Mare's palaeography class.
51 . From the catalogue of the exhibition 'Articella. The medieval textbook of medicine', mounted by Dr R. French in Cambridge University Library in December 1996.
52 . From the catalogue of the exhibition 'Articella. The medieval textbook of medicine', mounted by Dr R. French in Cambridge University Library in December 1996.
53 . "Annotations in the Articella range from interlinear glosses, through larger marginal postils to discursive commentaries written out continously in the margins." This is the same in the *Corpus Vetustius* manuscripts. Again from the catalogue of the exhibition 'Articella. The medieval textbook of medicine', mounted by Dr R. French in the University Library in December 1996.
54 . Charles Burnett has noted what he calls the 'Oxford gloss' in the British copies of the *Corpus vetustius*. See Burnett, 'The introduction of Aristotle's...', pp.21-49.
55 . From the catalogue of the exhibition 'Articella. The medieval textbook of medicine', mounted by Dr R. French in Cambridge University Library in December 1996.
56 . Michael Camille, 'The discourse of images in philosophical manuscripts of the late middle ages: Aristoteles' Illuminatus', *I luoghi dove si accumulano i segni dal manoscritto alle reti telematiche*, Atti del Convegno di studi della Fondazione Ezio Franceschini e della Fondazione CBM Italia Certosa de Galluzzo, 20-21 ottobre 1995/ Centro Italiano si Studi Sullalto Medioevo, Spoleto, pp.93-110 (p.107).
57 . From the catalogue of the exhibition 'Articella. The medieval textbook of medicine', mounted by Dr R. French in Cambridge University Library in December 1996.
58 . M. B. Parkes, *English cursive bookhands 1250-1500* (Oxford: Clarendon Press, 1969), p.xiii.
59 . Parkes, *English cursive...*, p.xiii.
60 . Michelle P. Brown, *A guide to Western historical scripts from antiquity to 1600* (London: British Library, 1990), p.80.
61 . Professor De La Mare's palaeography lectures.
62 . Bischoff, p.154.
63 . Brown, p.80.
64 . Although some omissions of rubrications etc.may suggest that the text was used as a *pecia* exemplar, see Pollard, pp.145-161.
65 . Professor De la Mare's palaeography lectures.
66 . C. Piana, 'Descriptio codicum Franciscalium necron. S. Thomas Aquinas: In Bibliotheca Abornotiana collegi Hispani Bononiae asservatorum', *Antonianum*, 17 (1942), 7-132 (p.127).
67 . A. Poorter, *Catalogue des Manuscrits de la Bibliothèque Publice de la Ville de Bruges* (Paris: Société d'édition les belles lettres, 1934), pp.600-602.
68 . James, II, pp.416-7.

69 . P. G. Antolin, *Catalògo des Manuscrits de los Codicos Latinos de la Real Biblioteca del Escorial*, 5 vols (Madrid: Helénica, 1911), II, pp.157-9.
70 . Lacombe, *Pars Prior et Posterior*.
71 . Lacombe, *Pars Prior*, pp.659-60 (no.878).
72 . Lacombe, *Pars Prior*, pp.673-4 (no.915).
73 . S. A. J. Moorat, *Catalogue of Western manuscripts on medicine and science in the Wellcome Historical Medical Library* (London: The Wellcome Historical Medical Library, 1962), pp.2-4.
74 . R. A. B. Mynors, *Catalogue of the mss of Balliol College Oxford* (Oxford: Clarendon Press, 1963), pp.263-4.
75 . Brown, pp.80-115.
76 . Mynors, pp.329-31.
77 . Parkes, English cursive..., plate 16.
78 . Lacombe, *Pars Prior*, p.395 (no.333).
79 . Lacombe, *Pars Prior*, p.545 (no.641).
80 . Moorat, pp.2-3.
81 . Thomson, 'A further note...', 23-32 (p.24).
82 . Callus, 'Introduction of Aristotelian...', 229-281 (p.256).
83 . Thomson thinks there is a possibility that this text may exist but no attribution has been made. See Thomson, 'A note on the works...', 55-87 (p.83).
84 . Callus, 'Introduction of Aristotelian...', 229-281 (p.256).
85 . From Thorndike, Lynn, and Kibre, Pearl, *Catalogue of incipits of medieval scientific writings in Latin* (London: The medieval academy of America, 1963), col.1279. Referred to from now on as TKP
86 . *superius* translated as 'above' i.e. as in what has been written before, Adam says this because this text is placed last in the line of medieval psychological works and is usually found at the end or towards the end of a manuscript which contains it (at least in the five or six manuscripts I have seen).
87 . Note Adam *'subalternati libro anima'* in *De sensu et sensato*. see Thomson, 'A note on the works...', 55-87 (p.78). and Madrid, Biblioteca nacional 3314 f.110c *In precedentibus libris subalternatis libro de anima*. See Thomson, 'A note on the works...', 55-87 (p.81).
88 . TKP, col.689.
89 . TKP, col.306.
90 . TKP, col.903.
91 . TKP, col.789.
92 . TKP, col.1158.
93 . TKP, col.342.
94 . Russell, pp.2-3.
95 . TKP, col.1548.
96 . TKP, col.678.
97 . TKP, col.724.
98 . TKP, col.760.
99 . TKP, col.761.
100 . TKP, col.761.
101 . TKP, col.925.
102 . TKP, col.310.
103 . TKP, col.1264.
104 . TKP, col.1301.
105 . TKP, col.702.
106 . TKP, col 760.

107 . TKP, col.678.
108 . TKP, col.1315.
109 . TKP, col.1498.
110 . TKP, col.702.
111 . TKP, col.702.
112 . Bataillon, 35-39 (p.39).
113 . Thomson, 'A note on the works...', 55-87 (p.65).
114 . Thomson, 'A further note ..', 23-32 (p.32).
115 . Thomson, 'A further note .', 23-32 (p 32).
116 . For lists of Adam's MSS See articles by Thomson and Bataillon.
117 . Thomson, 'A note on the works...', 55-87 (p.58). "The 'Butrefeld' is clearly a South German misreading for Buckfield or Buckefeld. The English 'h' and 'k' were always a source of confusion to German scribes."
118 . Which Thomson calls, "an obvious Italian perversion of some form of Buckefeld." Thomson, 'A note on the works...', 55-87 (p 60).
119 . Callus, 'Introduction of Aristotelian...', 229-281 (pp.263-4).
120 . Piltz, p.290.
121 . Marenbon, *Later medieval philosophy*, p.52.
122 . Knowles, p.259.
123 . Knowles, p.191.
124 . Thomson, 'A note on the works...', 55-87 (p. 65).
125 . As we shall see below, Adam is often found alongside these two authors, therefore he was not wholly superseded.
126 . Bataillon, 35-39 (p.39).
127 . Thomson, 'A further note...', 23-32 (p.32).
128 . Thomson, 'A note on the works...', 55-87 (p.57).
129 . Bataillon, 35-39 (p.39).
130 . The last printed Opera Omnia of Aquinas, 25 vols, Parma 1852-73, contains Adam's exposition of *De somno et vigilia* and *Divinitione per somnum*. Other cases are found. This backs up Bataillon, see Bataillon, 35-39 (p.39).
131 . Callus, 'Introduction of Aristotelian...', 229-281 (p.230).
132 . Thomson, 'A note on the works...', 55-87 (p.64).
133 . Lacombe, *Pars Prior*, pp.1204-5 (no.1810).
134 . Thomson, 'A note on the works...', 55-87 (p.58).
135 . Lacombe, *Pars Posterior*, pp.889-90 (no.1286).
136 . *Liber fuit monasterii Salvatoris bononiensis No. 10245. f.3r* and in Bibliothèque Nationale, *Parisiensem saec. XIX delatus* From Lacombe, *Pars Posterior*, pp.889-90 (no.1286). It is very likely that it ended up in the Bibliothèque nationale as a result of the French Revolution, which closed many religious houses, just as the Royal Collection in the British Library started with the dissolution of the monasteries. This is further evidence suggesting that religious houses were the main patrons of these *Corpus vetustius* manuscripts.
137 . Lacombe, *Pars Posterior*, pp.889-90 (no.1286).
138 . Thomson, 'A note on the works...', 55-87 (p.61).
139 . Lacombe, *Pars Posterior*, pp.940-1 (no.1368).
140 . Thomson, 'A note on the works...', 55-87 (p.63).
141 . Lacombe, *Pars Prior*, pp.509-10. (no566).
142 . Noone, 308-316
143 . Noone, 308-316 (p.309)

144 . Noone, 308-316 (p.311).
145 . Lacombe, *Pars Prior*, p.251 (no.28).
146 . See Thomson, 'A note on the works...', 55-87 (p.64).
147 . See Thomson, 'A note on the works...', 55-87 (p.61).
148 . Thomson, 'A note on the works...', 55-87 (p.62).
149 . Lacombe, *Pars Prior*, pp.349-50.
150 . Thomson, 'A note on the works...', 55-87 (p.63).
151 . Lacombe, *Pars Prior*, pp.511-2 (no.569).
152 . Thomson, 'A note on the works...', 55-87 (p.63).
153 . Noone, 308-316 (p.311).
154 . Lacombe, *Pars Prior*, p.251 (no.28).
155 . Lacombe, *Pars Posterior*, pp.889-90 (no.1286).
156 . Lacombe, *Pars Prior*, p.537 (no.625).
157 . Lacombe, *Pars Posterior*, p.1066 (no.1553).
158 . Thomson, Thomson, 'A note on the works...', 55-87 (p.58).
159 . Lacombe, *Pars Posterior*, pp.940-1 (no 1368).
160 . Thomson, 'A note on the works...', 55-87 (p.63).
161 . Thomson, 'A note on the works...', 55-87 (p.63).
162 . Lacombe, *Pars Posterior*, p.885 (no. 1276).
163 . Inguanez, M., *Codicum Casiensium manuscriptorum catalogus*, 3 vols (Montecassino, 1915), I, pp.12-13.
164 . "Certainly, the wide range and thoroughness of Buckfield's Aristotelian commentaries confirm Adam Marsh's judgement about Buckfield's learning." Noone, 308-318 (p.308).
165 . "The large number of surviving manuscripts preserving Buckfield's commentaries on the *libri naturales*, moreover, would seem to indicate that his works were valued as aids in unravelling the meaning of the difficult latin translation of Aristotle." Noone, 308-316 (p.308).
166 . Thomson, 'A further note...', 23-32 (p.32).
167 . Bataillon, 35-39 (p.35).
168 . Lacombe, *Pars Posterior*, pp.962-3 (no. 1405).
169 . Lacombe, *Pars Prior*, pp.725-6 (no.1026).
170 . Thomson, 'A note on the works...', 55-87 (p.62).
171 . James, II, pp.575-6. Lacombe, *Pars Prior*, pp.349-350 (no.237). At the end of the physics, f.95, is the note: *correctus a magistro G. de Haspal.* The dependence of Galfrid of Haspall in his works upon Adam's Commentaries, often noticed, adds perhaps some interest to the text of this manuscript.
172 . *Inventario General de Manuscritos de la Biblioteca nacional* (Madrid: Ministerio de educacion nacional, 1957), III, pp.283-4.
173 . Lacombe, *Pars Posterior*, p.832 (no.1189).
174 . *Aristoteles Latinus. Supplementa Alterda*, ed. Laurentius Mimio-Paluello (Bruges-Paris: Desclée de Brouwer, 1961), p.79.
175 . Lacombe, *Pars Prior*, pp.408-409 (no.359).
176 . Lacombe, *Pars Prior*, p.537 (no.625).
177 . Bataillon, 35-39 (p.38).
178 . Lacombe, *Pars Posterior*, p.1066 (no 1553).
179 . Lacombe, *Pars Prior*, p.251 (no 28).
180 . Lacombe, *Pars Posterior*, pp.871-3 (no 1259)

Chapter Three: Adam of Buckfield's commentary on *De differentia spiritus et anime*

This chapter focuses on the *De differentia spiritus et anime* and Adam of Buckfield's commentary on it. The amount of work by Adam of Buckfield that can be presented here is limited by the time and space restrictions of a doctoral thesis. The *De differentia spiritus et anime* is suitable for this thesis as it is among the shorter works that appear in the *Corpus vetustius*. The *De differentia spiritus et anime* in the thirteenth-century context has up to now received very little attention from scholars.

The purpose of this chapter is to produce a text of Adam's commentary, as yet unpublished, to add to the commentary on the metaphysics that is published.[1] Thus this text will lay a basis for further research. Adam's commentary will serve historians as a window on the teaching of natural philosophy in the mid-thirteenth century. This research will show that Adam's commentaries on the texts of the *Corpus vetustius were* used in actual teaching and *how* his commentaries were used in teaching. This will throw light on the general use of commentaries in the thirteenth-century teaching of natural philosophy in the universities. Research done in the course of this thesis on the glosses and postils in the *Corpus vetustius* provides a large amount of primary source material for further research beyond the present study.

The text and translation given for Costa ben Luca's treatise are taken from the work of J. C. Wilcox. They are included in Appendix A.

The text of Adam's commentary will be presented along with a translation. From a

comparison of the text and commentary it can be seen exactly how Adam deals with Costa ben Luca's text as a commentator. This will help us to some extent discover why Adam's commentaries were popular in the second half of the thirteenth century and the beginning of the fourteenth.

Firstly it is necessary to discuss the historical circumstances of the treatise; where, when and by whom it was written and translated, and why it subsequently became a canonical text for thirteenth-century natural philosophy.

A history of the text: Costa Ben Luca

Costa ben Luca (Qusta ibn Luqa) is the author of the treatise *De differentia spiritus et anime*, which was written around 870 AD,[2] a text that is part of the Arabic intellectual culture that so greatly influenced and inspired Western intellectual culture in the twelfth and thirteenth centuries It was apparently well known in the Arabic intellectual world.[3]

> There is evidence that "on the Difference between Spirit and the Soul" was widely known in the Near East by Christians, Moslems and Jews alike, who cited it in medical, philosophical and even historical contexts.[4]

Costa was from Baalbek and was a Christian doctor and philosopher (d.923). He collected texts from Greek towns he visited and took them back with him to his home country of Syria. His reputation caused him to be summoned to Baghdad to translate Greek works. His scholarly ability covered diverse fields of knowledge including medicine, philosophy, music, geometry and astronomy.[5] Costa was, according to Browne, noted for

his mathematical translations.[6]

Costa composed the treatise for a friend. The full title (in the edited version) reads *Incipit liber differentie inter animam et spiritum quem consta ben luce cuidam amico suo scriptori cuiusdam regis edidit et iohannes hispalensis ex arabico in latinum Raimundo toletano archiepiscopo transtulit.*[7] 'Here begins the book on the difference between the soul and spirit, which Costa ben Luca produced for a certain friend of his, the secretary of a king, and which John of Seville translated into Latin out of the Arabic for Raymond, Archbishop of Toledo.'[8] This is also clear from Costa's text. He writes in the first and second person addressing his friend, *Interrogasti me, honoret te deus, de differentia que est inter spiritum et animam, et ut tibi scriberem.*[9] 'You have asked me, may God honour you, about the difference which is between spirit and soul and that I write down for you...'.[10] Later Costa writes, *Et usus sum in eo maxima brevitate, quia novi te variis negotiis occupatum et in operibus regis valde sollicitum, et quia pre angustia temporis impossibile est tibi in huiusmodi libris aspicere.*[11] 'And I have exercised the utmost brevity, because I know that you have been greatly occupied with various matters and very concerned with the business of the king, and because due to the shortness of time it is impossible for you to look at books of this kind.'[12] Costa clearly knows the person to whom he is writing. Again the end shows warmth towards his intended reader; *Auferat a te deus omnem trisiticiam et expellat a te quicquid fuerit timendum et det tibi fortunam in isto seculo et in futuro,*[13] 'May God keep from you all sadness and send away whatever is to be feared and give you fortune in this and in the future world.'[14] This sort of personal material is included in the text of the *De plantis*, with a dedication to Roger of Hereford by Alfred of Shareshill [15]

The nature of the text.

(i) A brief overview.

The *De differentia* is written from a Christian viewpoint. The work answers a central question that arises in the medieval Christian intellectual tradition, namely that expressed in the title of the work: the difference between the nature of the spirit and the soul. The importance of the spirit, as a medium between soul and body, is that it allows the soul not to have too much contact with base matter, that is, the body which corrupts and tarnishes the soul. This was an important question for the medieval Christian scholar.

Costa sensibly sets out first to define the *spiritus* and the soul and discusses the nature of each for the purpose of the treatise.

> *et quia volumus patefacere anime spiritusque differentiam, necesse est ut primum loquamur de anima et spiritu, postea de differentia que est inter utrumque.*[16]

Costa starts with the *spiritus*, defining what the *spiritus* is and what it does. He states that there are two types of *spiritus*, the vital and the animal, in the human body and indicates where they are found. He then lists the processes that are ascribed to each of the *spiritus*. The animal spirit, in the brain, controls the senses, movement, and various mental activities such as memory (*memoria*), recollection, foresight, thinking *(cogitatio)*, and

recognition *(cognitio)*. The vital spirit, which emanates from the ventricles of the heart, controls life, pulse and breath which nourish the body, expels unwanted material and cools the innate natural heat that was attributed to the heart. This scheme follows that set out by Greek doctors, notably Galen, who died in about 200 A.D.

Costa then deals with the soul. He points to the discord between the philosophers and the medical men on this subject, illustrating the difference between the two traditions, medical and philosophical.

> *Narrare aliquid de anima certissime grave est et valde et difficile, et hoc testatur diversitas et discordia precipuorum philosophorum, platonis scilicet atque aristotilis et gerosii necnon benededis et eorum similiter qui post illos venerunt.*[17]

> To say something about the soul is most certainly a serious matter and very difficult, and this is attested to by the diversity or discord among the greatest philosophers, namely, Plato and Aristotle and Herophilus, and also Empedocles, and similarly some who came after them.[18]

Costa then goes on to give Plato's and Aristotle's definition of the soul. He does this presumably because these were the two most important or accepted theories. He uses these two definitions to illuminate the virtues, characteristics or powers of the soul in their three graduations - the vegetative, sensible and rational aspects. He treats the *spiritus* and the soul in a similar way, and from this it is obvious to the reader what the difference between the *spiritus* and the soul is.

He concludes by saying that the *spiritus* is the mediator between the *anima* [soul] and the *corpus* [body].

(ii) Sources for the De differentia spiritus et anime.

In this text are put forward clear discussions of the Aristotelian and Platonic conceptions of the soul. It seems clear that Costa, writing in ninth-century Arabia, was well acquainted with the *acquainted with the Phaedo* and the *Timaeus* since he quotes them by name as books from which he takes information; indeed there is much Platonic influence in the work. Christians in the earlier Western middle ages relied on Plato for much of their metaphysical arguments. Aristotle's metaphysics did not support the concept of an immortal soul that we find in Plato's writings, for example the *Phaedo.*[20] The immortal soul was and is a central belief of the church. In the *Liber de differentia spiritus et anime* it is central that the soul operates cognition through its agent the spirit. The *Phaedo* was translated into Latin in the twelfth century. However it seems that it may not have been available in Oxford. We have an interesting gloss from a copy of the *Corpus vetustius* (see gloss no.9 in Chapter 5) which refers to the *catadon* or *Phaedo.* The gloss reads *quem non habemus* 'which we do not have'. This suggests that the *Phaedo* was unknown at Oxford when the manuscript (Durham, DCL, C.III.17) was glossed.

Aristotle is, not surprisingly, a source of authority for Costa. His physics are mentioned.[21] Costa also refers to Aristotle by his nickname of the 'philosopher'.[22] Costa had access to Aristotle when he was not available in the West. Because of this he was an important vehicle for the rediscovery of Aristotle in the twelfth and thirteenth centuries.

Apart from Aristotle and Plato, other philosophers are mentioned in Costa's text: Theophrastus who was Aristotle's successor at Athens, Hippocrates the 'father of medicine', Bendedis or Benededinis (a corruption of Empedocles[23]) and last but by no means least Galen. He mentions a book by Galen on teleological anatomy, the *De usu partium*, and the *De placitis Hippocratis et Platonis (On the Doctrines of Hippocrates and Plato)*, a work harmonising Hippocrates and Plato.[24] The medical relevance of the *De differentia* is obvious from the authorities used by Costa ben Luca.

The translator: John of Spain or Johannes Hispalensis

John of Spain translated this text, in approximately 1130 A.D.,[25] from the Arabic into Latin, at that centre of translation, Toledo. According to Thorndike (still a valuable source),

> Jourdain identified him with a John Avendeath or Avendehut (Joannes ibn David) who worked with the archdeacon Gundalissalinus under the patronage of Raymond archbishop of Toledo from 1126-1151.[26]
>
> John of Seville is further styled Luna or Limia, in one manuscript as bishop of Luna, and also seems to be the same person as John of Toledo or of Spain. In one of the citations of the *Speculum astronomiae* of Albertus Magnus he is called "Joannes Ulgembus Hispalensis."[27]

John translated mainly astrological works but on the evidence of *De differentia* was

not unversed in philosophical topics. The title of the work tells us for whom the translation was made: Raymond, who was the archbishop of Toledo from 1130 to 1150.[28] John translated this treatise from the Arabic into Latin under the guidance of Gundissalinus.

Why did John of Spain translate this work? As said above, the subject matter of the treatise was important for the Christians of the West. The book is partly Aristotelian in nature yet written by a Christian Arab, and consequently its contents were easier for later Christians to assimilate than some other texts by Greek or Muslim-Arab authors. The translation of this text was useful, and for example Gundissalinus uses this text in his *De anima.*[29] Not only did this text address the problem of the soul acting on the body but it briefly describes the processes in which the soul, *spiritus* and body took part. It seems to fill a gap in this area of knowledge for medieval Christians. It is notable that in his translation he included many Arabic words such as *athagil, anucha, alfecar, alabhar* and *alaadal.* These seem mainly to be technical terms for which John knew no Latin equivalents. The *De differentia*, popular amongst the Arabs, was to find a wider audience in the Latin west.

> Following its translation into Latin in the twelfth century, the book came to be known even better by Western thinkers, who classified it in or copied it among medical, philosophical, "medical-philosophical," and theological works.[30]

The text in England

This text may have been brought to England by one of the numerous Englishmen involved in this process of translation and distribution mentioned in Chapter 1. Costa ben Luca's *De differentia spiritus et anime* arrived with Arabic medical texts from Salerno.[31] A

copy was owned by a certain Herbert in England in the third quarter of the twelfth century.[32] This was not long after its translation by John. At some time around 1220 the *Corpus vetustius* was compiled, and this probably happened at Oxford or Salerno as discussed above. When Adam commented on this work it was already part of this canon or *corpus*.

The place of the De differentia in university teaching

The *Liber De differentia spiritus et anime* occurs frequently in manuscript collections of Latin translations of Aristotelian texts. The text was widespread across Europe and enjoyed a great respect in the university in the middle ages.[33] C. S.Barach mentions that Alfred of Shareshill (here called Alfredus Anglicus) worked on *De differentia*; he also mentions that the later scholars Albertus Magnus and Roger Bacon[34] used, argued about or built on what it said. This reflects the popularity of the text, which had become part of the curriculum.

The text is a regular member of the *Corpus vetustius* collections[35] that survive in various European libraries. This is how this text appeared to the thirteenth-century intellectuals, as a work within a definite framework of a collection of works: they saw it as part of a whole. As we have seen, the *Corpus vetustius* is a compilation of natural philosophical works that was put together for definite reasons and purposes specific to the thirteenth century.

> The *Libri naturales* were texts on Aristotelian natural philosophy prescribed to be read within the Arts Faculties of the European universities. The earliest, collection, known to scholars as the *Corpus vetustius*, was put together in the first decades of

> the thirteenth century from translations from Greek and Arabic, and provided Robert Grosseteste, Petrus Hispanus Portugalensis, Roger Bacon and Albertus Magnus with their knowledge of the texts of Aristotle's natural science.[36]

This specific compilation did not exist before the thirteenth century and was gradually replaced by a later compilation in the early fourteenth century (the *Corpus recentius)*. Each of the texts within the *Corpus vetustius* is there for a particular reason. The whole *Corpus* was intended to be used as a canonical guide for the study of natural philosophy through the texts that were considered important by the thirteenth-century intellectuals.

Why was Costa's text included in an Aristotelian programme?

> The only text of the *Libri naturales* studied in the European universities which was generally recognised not to be by Aristotle, was the *De differencia spiritus et animae* of Qusta ibn Luqa.[37]

There seem to be a number of reasons.

(i) The order of the appearance of the texts *in codice* within the *Corpus vetustius* appears to be fairly constant, and this was discussed in Chapter 1 of this thesis. This order is a progression, from general principles of motion to complex particular motions. If we examine this order some light can be shed on why the *De differentia spiritus et anime,* a study of very complex motions, is included in the *Corpus* and what part it played in thirteenth-century intellectual life. As Burnett says, it was part of a whole.

> That the *De differentia* was regarded as integral to the *Libri naturales* is indicated by the fact that Adam of Buckfield in Oxford in the 1240s comments on it along with almost all the other texts of the *Corpus vetustius*, and that the statutes of the Arts Faculty of the university of Paris in 1255 prescribe its study alongside the other *Libri naturales*. Moreover the overwhelming majority of manuscripts that contain the work are manuscripts of the *Corpus vetustius* or *recentius*. Over 150 manuscripts are listed in *Aristoteles latinus*.[38]

Wilcox points out that this is an impressive Latin circulation.[39]

The *De differentia* fits in at the end of the *Corpus vetustius*. The complex motions of the spirit, and the soul as the Form of the moving body, follow from Aristotle's exposition of the soul. The *De differentia* looks as if it belongs to the *Parva naturalia,* the books that give an account of actions related to the soul. The order of the works in the *Corpus vetustius* begins as follows: *Physica*, *De caelo*, *De generatione et corruptione*, and *Meteora* The work on the soul is central, and *De anima* is followed by *De memoria*, *De somno*, *De sensu et sensato*, *De differentia spiritus et anime*, *De morte et vita*, *De causis* and *De plantis*. (Sometimes the *metaphysica vetus* is included.[40])

In introducing the *Liber De differencia spiritus et anime* in his commentary Adam places this text last in the sequence of texts of the *Corpus vetustius* after *De anima* (the book on the soul). The text is easily tacked on to the 'psychological' (that is, works concerning the soul) works of Aristotle; it fits in the scheme of Aristotelian learning and is constructed to a large degree from this learning In the opening lines (the *accessus*) of Adam's commentary, *Cum determinatum....de spiritu*, he clearly gives its place in the

contemporary body of learning, and says where this text fits in and just as importantly why. It is useful to the thirteenth-century scholar because it is a complementary text written with the tools of Aristotelianism.

The text also has the purpose of extending an area of knowledge not extensive in the West. Adam points to this with the words '*Ideo simile.... iste liber.*' 'Therefore at the same time he determines about the soul and also the difference between the spirit and the soul, and because his topic is completed in this difference this book is therefore named from the fact, as if from a conclusion.'[41] It forms an extension and compilation of psychology from various sources but especially from Aristotle. This text fills in gaps in 'psychological' knowledge. It fills a gap in the *Parva naturalia*.

The text also has important medical value for medieval intellectuals, since it follows on from *De anima* which had importance for subsequent biology; "it [*De anima*] was at some point probably intended to provide a theoretical framework for the biological studies."[42] The *De differentia* has medical importance of its own. The text is full of biological information.

(ii) Although not by Aristotle, this treatise was still held in respect, and appears to have been popular. At different periods this treatise was assigned to Constantine,[43] Augustine, Isaac, Avicenna, Alexander Nequam, Thomas of Cantimpré and Albertus Magnus.[44] The assignment of this treatise to various authors, Christian and Muslim, and from differing periods, shows its general applicability and its widespread use. Costa's work was confused with another work *De differentia* which was also attributed to Augustine and is described by McEvoy in the following way:

> The same work .... is listed among Augustine's works in the concordance of Grosseteste and Marsh, which probably indicates that it had been in Grosseteste's hands for some time before 1236; and indeed he seems to have used it in the *Commentary on the Posterior Analytics*. The influence of the little treatise on his developed psychological theory was profound, crystallising as it did in the division of the rational cognitive power into *ratio*, *intellectus*, and *intelligentia*. Its authorship is now frequently attributed to Alcher of Clairvaux.[45]

It is obvious from Adam's commentary that he knew that this was a pseudo-Aristotelian text, for he mentions Aristotle but never as the author of the work. In the proemial part Adam says *per quam specificationem vitat arrogantiam non sibi ascribendo hoc opus et autenticus et edidit etiam hoc opus nominando plures philosophos*', 'through which specification he avoids arrogance by not claiming the work as his own, or as an original author, but he produced this book naming many philosophers'. From this passage it is obvious that the original author had compiled various arguments from different authors to produce this work, and at no time is Aristotle mentioned as the author. Adam brings this to the reader's attention.

It is interesting to note that at one point Adam calls the author *constabulus*. This seems to be a corruption of Costa Ben Luca.[46] Indeed the term *constabulus* seems to appear in **Durham DCL C.III.17**, in a marginal gloss at the beginning of the piece (381r) *...stabulus de differencia spiritus et*, i.e. that this is 'constabulus' on the difference between the spirit and the soul. Maybe medieval writers felt *constabulus* was some scholar's name since in the Durham manuscript it is a marginal gloss apparently with the purpose of

informing us of the name of the author. Again this name turns up in a manuscript described by Thomson[47] ascribed at the beginning, *Scriptum literale ... secundum Magistrum Adam anglicum super Constabulum de differencia spiritus et anime.* Here it is clear that *Constabulus* is seen as an author. Again in **Wellcome Medical-Historical Library 3** fol 65vb we get *Constaboli* at the beginning of the *De differencia spiritus et anime*. This name also appears in **Nürnberg Cent V 59** fol 215r, *quidam philosophus nomine constabularius v... a^os nomine petrus Commestor fecit hunc librum ad preces? cuiusdem amici.* The name appears in an interlinear gloss in **BN, lat. 12953** as *constabilarius*. Charles Burnett points to the fact that Albertus Magnus called him 'Constabenluce' and Alfred of Shareshill 'Costa Leuce'.[48] Indeed many more variants of this corruption are likely to be found in the glosses of the *Corpus vetustius* manuscripts as yet not transcribed.

If Adam had thought that the author had been Aristotle surely he would have used *philosophus*. Adam also gives the opinions of Averroes, Avicenna, Plato, and above all Aristotle. These lend authority to his interpretation of the text. It is clear from Adam's text that he believed the book was a compilation of opinions and not attributed to one author. In a sentence from another of Adam's commentaries he states that the *De differentia* is not by Aristotle.[49]

(iii)The non-Aristotelian works of the old corpus were, however, so Aristotelian in character and method that they became "canonised" along with the rest. This must tell us about the forces behind "canonisation" in this area.

The *De differentia* was written in the manner that was understood to be Aristotelian in the thirteenth century, it is an extra book largely formed with information found in the

authentic psychological works and with the dialectical methods that lay behind the Aristotelian treatises. This is why I feel this text came to form part of the canon. I think that the dialectical outlook inherited from Aristotle (as well as his texts) became canonised in the thirteenth century, and subsequently centuries. Throughout commentaries on medieval natural knowledge or 'science'[50] authors agreed and disagreed with Aristotle but he is always their main source of reference and they argue their point if possible in Aristotelian terms even against the Philosopher himself.

The text of Adam of Buckfield's commentary

(i) Introduction

Adam wrote a commentary on the *De differentia* in the course of covering other texts in the *libri naturales*. This text, and Adam's commentary upon it, are both small works. This means it can be dealt with in full within the space and time restrictions of a doctoral thesis. This is one reason for the choice of this text. Other texts and commentaries upon them were more important for thirteenth-century thought, such as *De physica* or *De anima*, but these are far too long to be considered suitable subjects for this thesis. Indeed these are texts that have received much previous attention However the fact that the *De differentia* is not by Aristotle and does appear in the *Corpus vetustius* makes it worthy of study.

Adam's commentary on the *De differentia spiritus et anime* is found in the following manuscripts containing collections of commentaries:[51]

Camb., Peterhouse 143.

Admont, Stiftsbibl. 367.

Coimbra, Biblioteca Alcobaca 382.

Erlangen Uni. 197 (Irm. 528).

Florence, Biblioteca nazionale B. 5. 256 (Santa Croce).

London Wellcome Historical Medical Library 3.

Milan, Biblioteca Ambrosiana H.105 inf.

In the following transcription the main source is **Cambridge, Peterhouse 143**, referred to as P143. The other copy of the commentary I have examined is **London, Wellcome Historical Medical Library 3**, referred to as W3. P143 is the more complete version of the commentary, as examination of the transcription shows, therefore it is the more useful of the two manuscripts. More sentences and words are omitted from W3. P143 also has paragraph marks giving the text its format. However the last few paragraphs of P143 are largely illegible and therefore W3 becomes the main source, and this is indicated in the text. Wherever the two manuscripts differ I have indicated the difference. I must emphasise that this is not a critical, but a working edition of Adam's commentary, partly for the purpose of identifying glosses in the *Corpus vetustius* manuscripts. Throughout the text I have used numerals in bold type (not superscript italic - see Chapter five) to indicate which part of Costa's text Adam is using as *lemmata*. These *lemmata* have been numbered as they appear in Adam's commentary and not from the order of Costa's text. The numbers in Appendix A therefore appear to jump from place to place; however this is how Adam's commentary deals with Costa's text. Costa's text can be found in Appendix A. The text has been punctuated with modern punctuation following the medieval punctuation as closely as possible. However it has been changed where the sense demands W3 and P143 demonstrate

the inconsistent practice of medieval scribes. Important lemma are given in bold reflecting their larger script in the manuscript P143.

The Text

Interrogasti me et cetera. Cum determinatum sit superius[52] de anima secundum se et de operationibus anime scilicet in libro de anima et in libris subalternatis[53], et quia diversitas operationum ipsius anime sequitur[54] ad diversitatem instrumentorum mediantibus quibus operatur ipsa anima, ideo simul determinavit Aristotiles[55] naturam instrumentorum, et[56] quia unum est organum primum ipsius anime scilicet spiritus mediante quo influit anima in omnia particularia instrumenta et operatur sensum atque motum, ideo utilitatis causa intendit auctor iste scilicet constabulus determinare de spiritu, et quia spiritus est finaliter propter animam ut immediate recipiat anime influentiam, quod potest facere eo quod est corpus subtile et clarum, ideo simul determinat de anima et etiam de differentia spiritus ad animam, et quia sua scientia completur in hac differentia, ideo ab illo sicut a completivo[sic], denominatur iste liber, et est ultimus inter libros subalternatos libro de anima; tum quia est de bene esse, alii autem[57] de esse; tum quia spiritus de quo determinatur in hoc libro est commune instrumentum omnium operationum anime de quibus determinatur in libris precedentibus. Dividitur ergo iste liber in duas partes, in prohemium et tractatum[58]; tractatus incipit ibi[59] spiritus est quoddam corpus**1**[60]; prima in duas: in prima dat intentionem suam[61]; in secunda <dat>[62] modum procendendi[sic for procedendi] cum sua causa[63] secunda ibi et usus sum[64] **2**; prima in duas: in prima dat intentionem, et nota quod scribit cuidam amico suo scilicet luce[65], in secunda <et ecce scribo>[66] specificat suam intentionem, per quam[67] specificationem vitat arrogantiam non sibi ascribendo hoc opus et autenticus et edidit etiam hoc opus nominando plures philosophos.

Tunc sequitur illa pars et usus sum**2** in qua dat modum procedendi; et dividitur in duas quia primo dat modum procedendi in generali; secundo in speciali, secunda ibi nunc autem incipiens

dicam3<;> adhuc prima in duas quia primo dat modum procedendi in generali; secundo subdit duplicem eius causam, secunda ibi quia novi te4; et ista in duas est secundum duas causas, secunda ibi et credo5.[68]

<S>piritus est quoddam corpus subtile et cetera1

Determinata parte prohemiali, hic incipit pars executiva; et dividitur in duas: in prima determinat de anima et spiritu divisim. In secunda determinat differentiam eorum ad invicem, secunda ibi et quia auxiliante deo[69] 6; adhuc[70] prima in duas: in prima determinat de spiritu in secunda de anima, secunda ibi narrare aliquid[71] 7; adhuc[72] prima in duas. In prima supposita divisione spiritus in animalem et vitalem diffinit utrumque. In secunda ad manifestationem suarum diffinitionum determinat specialiter de utroque, secunda ibi quidam ex laudabilibus[73] 8; prima habet duas secundum quod due sunt diffinitiones, secunda ibi et similiter.9

Et nota quod in diffinitione spiritus vitalis primo ponit genus cum dicit corpus subtile10<.> Deinde loco differentie tria tangit, scilicet ortum spiritus et viam[74] per quam refertur[75] ad operationem eiusdem.

Nota etiam quod licet spiritus sit in brutis sicut in homine, quia tamen determinat de spiritu finaliter propter cognitionem spiritus qui est in corpore humano, et ideo diffinit spiritum prout est in corpore humano: ac tamen diffinitio intelligenda est de omni spiritu vitali.

Nota etiam quod in corpore humano sunt duo genera venarum scilicet vene non pulsatiles in quibus defertur sanguis per totum corpus, et iste communiter vene vocantur; et sunt vene pulsatiles in quibus defertur spiritus vitalis per totum corpus, et iste communiter vene[76] vocantur **(f.121va)** arterie[77], et in hoc libro vene vocantur pulsus.

Nota etiam quod in diffinitione spiritus animalis debet reperi<ri>[78] genus positum in diffinitione spiritus vitalis scilicet corpus subtile, et deinde <ponuntur[79]> dicta tria loco differentie sicut in alia diffinitione.

Tunc sequitur[80] illa pars Quidam ex laudabilibus[81] **8**, in qua determinat specialiter de utroque spiritu; et[82] dividitur in duas: in prima determinat de spiritu vitali, in secunda de spiritu animali, secunda ibi spiritus autem qui procedit**11**[83]. Prima in duas: in prima determinat ortum sive generationem spiritus vitalis, in secunda determinat ipsius effectus, secunda ibi et ex ventriculo**12**[84].

Et nota quod licet spiritus vitalis <originaliter[85]> sit in sinistro thalamo cordis tamen transfertur in dextrum et inde exit secundum auctorem.

Tunc sequitur illa pars[86] et ex ventriculo**12**[87] in qua determinat eius effectus; et[88] dividitur in duas: in prima determinat quomodo et ubi spiritus vitalis facit anelitum. In secunda ubi et quomodo facit vitam, secunda ibi alteram vero venam**13**[89]; prima in duas: in prima determinat anelitum, in secunda quomodo facit ipsum, secunda ibi cor autem colligatur**14**[90].

Et nota quod due vene exeuntes a corde de quibus facit mentionem sunt partes vene magne de qua fit mentio in fine primi de sompno et vigilia. De vena autem adorti que est prima venarum non pulsatilium non facit mentionem quia non pertinet ad scientiam istam.

Tunc sequitur pars illa cor autem**14** in qua ostendit quomodo facit anelitum; et[91] dividitur in duas: in prima determinat quomodo facit spiritus anelitum in communi <,> in secunda in speciali, secunda ibi cor ergo extendere**15**[92]; prima in duas: in[93] principalem et correlativam, secunda ibi[94] et ideo pulsus**16**.

Tunc sequitur illa pars cor ergo**15** in qua ostendit quomodo facit anelitum in speciali; et[95] dividitur in duas: in prima determinat quomodo spiritus vitalis facit inspirationem et qua de causa; in secunda quomodo cor facit expirationem, et qua[96] de causa, secunda ibi et cum cor colligatur**14**[97].

Et nota super partem correlativam quod pulsus dicitur communiter et proprie: proprie dicitur pulsus motor cordis et arteriarum[98] ramificatarum per totum corpus quod est secundum diastole idest secundum elevationem ad refrigerationem <in>nati[99] caloris et egestionem fumosarum

superfluitatum. Communiter dicitur pulsus ad istum pulsum proprie dictum et ad pulsum in anelitu[100] qui fit in canna pulmonis, primo modo sumitur pulsus in corpore, secundo modo sumitur pulsus ut immediate prius condicit quod per motum cordis fit pulsus totius corporis.

Nota etiam super illam partem in qua docet quomodo fit expiratio quod cor est prima et remota causa anelitus, pulmo autem proxima causa eius; et sic debet solvi contrarietas in dictis Aristotelis, dicit enim in libro de sompno et vigilia quod radix est cor et principium vite et anelitus: et in secundo posteriorum dicit quod piscis non respirat quia non habet pulmonem, unde vult <ibi>[101] quod habere pulmonem sit propria causa respirationis.

Tunc sequitur[102] illa pars alteram vero**13**[103] in qua determinat ubi et quomodo spiritus vitalis facit vitam; et[104] dividitur in duas: in prima narrat quod intendit, in secunda confirmat hoc per signum, secunda ibi et videntur**17**[105]; prima in duas: in prima determinat ubi spiritus vitalis facit vitam quam in arteriis[106] ramificatis per totum corpus in secunda determinat[107] quomodo facit vitam, secunda ibi et hec est causa**18**[108].

Et nota[109] circa hanc secundam partem quod pulsus est[110] causa propinquior vite quam anelitus quia sine pulsu non est vita in aliquo membro etiam per motum[111] sine anelitu[112] durat vita aliquo tempore licet parvo.

Tunc sequitur[113] illa pars et videntur**17**[114] in qua confirmat hoc quod narravit per signum; et[115] dividitur in duas: in prima ponit signum; in secunda quia fecit mentionem de exitu spiritus vitalis in morte disgreditur ad determinandum eius exitum, secunda ibi et eius exitus a corpore**19**[116]. Et ista[117] in duas: in prima facit quod dicendum est; in secunda excusat se a quibusdam determinatis, in hoc libro secunda ibi et apparitio eius**20**[118]: prima in tres: in prima ostendit per quam viam exit spiritus; in secunda determinat tempus exitus eius, ibi et eius exitus ex ore**21**[119]. In tertia determinat causam ipsius exitus, ibi causa autem**22**[120].

Et nota circa exitum spiritus in hora[121] mortis frigiditas et siccitas[122] que tunc dominantur in membris et primo in membris exterioribus fugant spiritum vitalem, qui est calidus et humidus, ab ipsis membris per arterias[123] <us>que ad cor; et deinde expellitur per cannam pulmonis extra per medium oris: et ideo in hora mortis anelitus est profundus quia tractus a longe: trahit enim spiritum a singulis partibus et expirat[124] eum **(121vb)** donec simul recederit totus spiritus et vita; unde apparet etiam <sentus> saltus spiritus exteriori[125] parte membri usque ad interiorem in morientibus et in bene complexionatis exit spiritus cum difficultate et ibi est gravitas mortis, in debiliter autem complexionatis faciliter exit, et ibi est levitas mortis.

Ultimo autem[126] cum dicit patet autem ex hoc**23**[127] recapitulat determinata de spiritu vitali; et concludit eius diffinitionem quam ponit in principio cum dicit Iam ergo patet**24**[128] residua sententia patet in littera.

<S>piritus vero qui procedit**11**. Determinato de spiritu vitali, hic determinat in speciali de spiritu animali: et dividitur in duas: in prima determinat eius generationem sive principium; in secunda declarat de eius effectibus, secunda ibi deinde transit**25**[129]; prima in duas: in prima determinat eius ortum in communi, in secunda in speciali, secunda ibi quia divisiones**26**[130]. Et ista in qua determinat in speciali in tres[131]. In prima quia spiritus animalis nascitur a vitali determinat quomodo spiritus vitalis pervenit ad cerebrum. In secunda determinat dispositionem cerebri cuius cognitio est necessaria ad ortum spiritus animalis, secunda ibi cerebrum autem**27**[132].

Et nota quod due rationes cerebri ponunt in ipso, tres portiones primam secundum anteriorem mediam et secundam[133] postremam: in prima scilicet anteriori sunt duo ventriculi; in medio est unus tantum et similiter postrema: et dicitur medius ventriculus communis anterioribus et non posteriori; quia meatus ab illis duobus ventriculis ad medium semper est aptus non habens aliquod corpus claudens ipsum. Sed meatus a medio ventriculo ad posteriorem clauditur corpore medio.

In tertia parte que ibi incipit[134] pulsus vero**28** determinat quoniam generationem spiritus

animalis a vitali intendens quod spiritus vitalis delatus ad anteriorem partem cerebri in suis ventriculis novam recipit digestionem per temperamentum cerebri et per virtutem anime vigentis in ipso et fit animalis per subtilitatem et claritatem quam recipit.

Tunc sequitur pars[135] deinde transit**25**[136] in qua determinat de effectibus spiritus animalis et[137] dividitur in duas<.> In prima determinat ubi facit suos effectus in generali; in secunda quomodo facit eos et ubi in speciali, secunda ibi cum ergo apertum**29**[138]: prima in duas: in prima ostendit quod spiritus animalis post sui generationem facit suos effectus in ventriculis cerebri transeundo ab uno in alterum. In secunda vocat dispositionem aliorum ventriculorum, secunda ibi in ipso transitu**30**[139].

Tunc sequitur illa pars[140] cum ergo apertum**29**[141] in qua determinat de effectibus spiritus animalis in speciali; et[142] dividitur in duas[143]: in prima determinat de illis in secunda declarat[144] quomodo[145] omnia predeterminata per unam rationem communem, secunda ibi et fortassis[146] accidit**31**: prima in duas: in prima determinat quomodo facit cognitionem; in secunda quomodo facit motum processivum, secunda ibi procedit quoque**32**[147]: prima in tres: in prima ostendit quomodo et ubi facit memoriam. In secunda quomodo et ubi facit cogitationem et intellectum<,> ibi intellectus enim**33**[148]. In tertia quomodo et ubi facit sensum, ibi. ex ventriculo autem**34**[149]: prima in tres: in prima ostendit quomodo spiritus animalis facit sensum <prima in tres: in prima ostendit quomodo spiritus animalis facit[150]> memoriam et ubi. In secunda determinat diversitatem accidentem circa memoriam in diversis hominibus, ibi illo vero**35**[151]. In tertia [et ideo accidit]**36**[152] declarat per signum quod predixit.

Tunc sequitur[153] illa pars pars intellectus enim**33**[154] in qua determinat quomodo facit intellectum ubi continua sic ita fit memoria in posteriori ventriculo enim pro quia et cetera[155].

Et nota ibi quod intellectus alicuius rei et etiam cogitatio impeditur per recordationem primo[156] posteriorum[Posterior Analytics], et dividitur in tres primo facit hoc[157] in secunda ponit

signum ad declarationem predeterminati, ibi et ideo accidit**37**[158]. In tertia determinat quomodo diversimode iste spiritus per diversitatem causat intellectum, ibi spiritus autem**38**[159] et cetera[160]<.>

<E>t ex ventriculo**34** et cetera[161]. Ostenso quomodo spiritus animalis facit memoriam et intellectum, hic ostendit quomodo operatur sensum, et dividitur in duas: in prima manifestatur[162] hoc, in secunda confirmat per signa secunda ibi et inditium huius**39**[163].

Nota circa partem primam quod duo sunt genera nervorum: sunt enim quidam nervi solidi qui <sunt>[164] solidissima pars animalis praeter os; et illi sunt ad sustentationem cordis folis non ministrantis sensum et motum quia sentiunt sicut dicit Aristoteles in libro de animalibus. Sicut enim oportet alii sunt nervi et[165] continui in quibus deferuntur spiritus animales a cerebro ad singula membra ministrantes sensum et motum; et huiusmodi nervus ponitur a commentatore instrumentum tactus et gustus et etiam visus, quia sicut dicit Avicenna visus fundatur in humore cristalino et nervo concavo. Unde et subtiliter cogitat de huiusmodi nervis subtilior est alio nervo grosior[166] tamen est et solidior vena vel arteria[167] nec contradicit libro quod dicit Aristoteles in libro de animalibus quod in cerebro non est nervus, neque vena, quia ibi loquitur de vena et nervo proprie dicto qui solidus est et non concavus.

Nota etiam quod exta[168] vocat omnes partes corporis in quibus est alia digestio **(f.122ra)** solum cum sensu tactus. Ufula est quedam pellicula que aliquando laxatur ante introitum gutturis impediens gustum atque sermonem

Tunc sequitur illa pars[169] procedit quoque**32** in qua dicit auc[t]or[170] quomodo spiritus operatur motum processivum; et dividitur in duas: in prima narrat hoc. In secunda declarat hoc per signum, secunda ibi cuius rei**40**[171], et hec secunda[172] in duas: in prima declarat hoc per signum commune; in secunda <et fortassis**31** in qua[173]> declarat per quamdam communem rationem omnia prenarrata de spiritu animali et est talis; quandocumque accidit aliquod impedimentum spiritui[174] animali existenti in ventriculis cerebri vel ex sua naturali complexione vel ex alia causa extrinseca ut

per ascensum malorum vaporum ad cerebri commixtionem illorum cum illo spiritu destruuntur sensus et universaliter cognitio motus animalis. Sed hoc non posset esse nisi spiritus animalis operatur sensum et motum; ergo manifestum est quod hoc operatur. Dividitur ergo ista pars in duas: in prima ponit maiorem et probat; in secunda infert conclusionem, secunda ibi probatur ergo**41**[175]; prima in duas: in prima ponit maiorem et dicit fortassis**31** quia sine aliqua causa propria solum casualiter potest contingere destructio rationis ut exteriore, vel etiam sensus ut ex aspectu solis. In secunda verbi gratia**42** probat eam inductive et illa in quattuor in prima inducit in spiritu que est in parte anteriori cerebri. In secunda in illo qui est in media parte cerebri, ibi verbi gratia si affuerit**43**[176]<.> In tertia in illo qui est in posteriori parte cerebri, ibi et si fuerit impedimentum**44**[177]<.> In quarta inducit similiter in omnibus, ibi et si fuerit in hiis**45**[178].

Et nota circa hanc partem quod melancolia est uno modo humor naturalis unus[179] ex quattuor humoribus; et sic est in quolibet animali et dicuntur melancolici qui complexionati sunt secundum dominium illius humoris. Alio[180] modo dicitur[181] melancolia scilicet infirmitas quedam que est perturbatio rationis vel amentia, et sic vocantur melancolici amentes; et nominatur hec infirmitas hoc modo, quia quando ille[182] humor scilicet melancolia immoderate excedit in toto animali tunc fumi melancolici qui sunt nigri et sicci, et ita ipsi cerebro et spiritui animali contrarii, spiritus enim substantia aerea est et lucida, et cerebrum est album et humidum, elevantur sursum et miscent se cum spiritu qui est in medio sive in superiori parte cerebri et perturbant opus rationis.

Nota etiam circa conclusionem quod idem spiritus secundum substantiam operatur sensum et fantasiam. Ideo etiam ponitur a quibusdam quod due sunt celule[183] in parte anteriori cerebri, ut in una operetur sensum communem in alia<m>[184] fantasiam.

Ultimo epylogat omnia predeterminata a principio libri de utroque spiritu.

Et nota ibi quod aer dicitur nutrimentum spiritus vitalis non quia transeat in spiritum sed quia refrigerat ipsum ne suffocet cor et se ipsum proprio calore, et hoc est constat ergo**46**.

<N>arrare aliquid de anima7 Determinato de spiritu hic determinat de anima; et dividitur in duas: in prima determinat difficultatem determinandi de anima cum sua causa. In secunda determinat de ea, ibi sed modo commemorabi<m>us47[185]; hec secunda adhuc dividitur in duas[186]: in prima dat intentionem et modum procedendi; in secunda prosequitur, secunda ibi Dicamus ergo48[187].

Hec secunda dicamus ergo48 in qua prosequitur dividitur[188] in duas: in prima ponit duas diffinitiones anime et exponit eas[189]; in secunda enumerat[190] partes anime, secunda ibi et quia iam exposuimus49[191]; prima in duas: in prima[192] ponit duas diffinitiones anime prima est Platonis secunda Aristotelis ibi Aristotelis vero50; in secunda exponit eas, secunda ibi nunc ergo exponamus51[193].

Ista[194] secunda nunc ergo exposuimus et51[195] dividitur[196] in duas: prima exponit primam diffinitionem que fuit Platonis. In secunda exponit secundam que est Aristotelis, secunda ibi et quia iam exposuimus49[197]: prima in tres: secundum quod diffinitio Platonis tres particulas continet in prima probat primam particulam scilicet que anima est substantia. In secunda probat secundam scilicet quod est incorporea, ibi et qualiter manifestum52[198]: in tertia exponit tertiam particulam scilicet quod anima est movens corpus, ibi nunc exponemus53[199] prima habet duas partes secundum quod duas habet rationes, secunda ibi item omne quod movetur54.

Tunc sequitur illa pars et qualiter manifestum52 in qua probat secunda particulam scilicet quod anima est incorporea; et dividitur in[200] quinque particulas secundum quinque rationes, secunda ibi item omne corpus 55

Et si obiciatur[201] circa eam quod corpus scilicet celeste subiacet solum visui, dicendum quod ex quo subiacet visui ex consequenti subiacet sensui communi qui est sensus distinctus a partibus, et ita subiacet pluribus sensibus tertia ratio incipit ibi item omne corpus55[202], quarta ibi et interum si anima56[203].

Et nota quod cum anima sit substantia subtilissima sicut ab omnibus ponitur si esset corpus subtilissimum esset, qualiter esset **(f.122rb)** elementum si<c>[204] ignis vel aer; licet enim spiritus sit corpus subtile non tamen dicitur subtile respectu omnium corporum simpliciter sed respectu mixtorum; aer enim excedit spiritum in subtilitate, et ideo sequitur quod anima sit corpus subtile quod sit aer vel ignis.

Quinta incipit hic item si fuerit**57**.

Et nota ibi quod formam completivam rei vocat fortitudinem**58**[205] quia dat complementum rei et est principium rei sue virtutis et fortitudinis.

Tunc sequitur illa pars nunc exponamus**53** in qua exponit tertiam particulam scilicet quod anima est movens corpus; et[206] dividitur in duas: in prima distinguit modos moventium; in secunda illos[207] quatuor modos moventium adaptat[208] ad animam quod est principale intentum, secunda ibi sic anima movet corpus**59**[209].

Et nota quod <licet[210]> diffinitio platonis ponatur[211] tamen plato contradicit in hoc quod creaverit; plato enim posuit animam moveri per se sed iste auc<tor> ponit eam esse per se immobilem, unde illam particulam in diffinitione obmisit[212].

<E>t quia iam exposuimus**49**. Explanata diffinitione Platonis, hic intendit explanare diffinitionem Aristotelis. Et dividitur in duas: in prima dat intentionem, in secunda prosequitur, secunda ibi qui ita diffinit**60**[213]. Ista secunda[214] dividitur[215] in duas: in prima repetit diffinitionem superius datam. Et addit ei aliam, et hec secunda diffinitio est illa que ponitur in principio secundi de anime. Et addit hanc particulam instrumentalem super primam. In secunda exponit eas, secunda ibi redeamus adhoc**61**[216]. Et ista secunda[217] in duas: in prima exponit secundam diffinitionem que completior est, in secunda reducit primam diffinitionem ad illam, secunda ibi quod autem videtur[218] corrumpere**62**. <Prima in duas: in prima exponit secundam diffinitionem primam; in secunda et si ita est**63** concludit eam iam explanata[219].> Prima in duas: in prima ostendit quod anima est perfectio et

cuius perfectio[220]. In secunda cuius est perfectio secunda ibi et omnis species**64**. Prima in duas: in prima ostendit quod anima est perfectio in secunda cuius sit perfectio[221], secunda ibi et quia nunc probatur**65**.[222]

Et nota ibi quod duobus modis dicitur perfectio prima et secunda: <u>no[223] modo secundum quod dicit hic quod forma in se considerata est prima perfectio rei; operatio egrediens a forma perfecta secunda· et hec eadem distinctio ponitur in principio secundi de anima. Alio modo dicitur perfectio prima <quia[224]> forma substantialis et perfectio secunda forma accidentalis.

Tunc sequitur illa pars et quia nunc probatur**65**[225] in qua ostendit cuius sit perfectio anima. Et[226] dividitur in duas: in prima ostendit quod anima sit[227] perfectio corporis. In secunda cuius <corporis[228]> sit perfectio, secunda ibi modi autem corporum**66**[229]. Et ista[230] secunda in duas: in prima ostendit quod anima est perfectio corporis naturalis, in secunda cuius corporis naturalis, secunda ibi modi vero corporis**67**[231]. Et ista secunda[232] in duas: in prima ostendit quod anima est perfectio corporis naturalis compositi; in secunda cuius compositi quoniam instrumentalis, secunda ibi et neccessitate est**68**[233]. Et secunda ista[234] habet duas secundum quod duas ponit rationes, prima est communis omni viventi, secunda est specialis animalibus, et incipit ibi multiplicantur quoque**69** et ceterea[235].

<E>t quia iam exposuimus utrasque diffinitiones**70**[236]. In parte ista determinat de partibus anime. Et dividitur in duas: in prima dat intentionem, in secunda prosequitur, secunda ibi et dicamus**71**[237]. Et ista secunda[238] in duas: in prima determinat de partibus anime in se; in secunda determinat de operationibus earum, secunda ibi opus autem**72**[239]: prima in duas: in prima enumerat partes anime; in secunda ostendit que partes quibus in sunt, secunda ibi anima autem vegetabilis**73**[240]<.>

Tunc sequitur[241] illa pars opus autem**72**[242] in qua determinat de operationibus partium et

dividitur in tres: in prima determinat operationem anime vegetative; in secunda determinat operationes anime sensitive ibi, et opera anime**74**[243]; in tertia determinat operationes anime rationalis, ibi opera vero**75**[244].

Et nota circa primam partem quod operatio communis cuius licet anime vegetative solum nutrire est semper enim hanc exercet dum est; sed non semper augmentat neque generat. Et ideo <solam[245]> primam operationem nominat in littera et non alias duas licet sint[246] proprie anime vegetative.

Nota etiam circa ultimam partem sufficientiam operationum anime intellective sive rationalis sit apprehensio a<nime ration>[247] alis aut cadit super presentiam tantum et sic dicitur visus in<terio>r[248] scilicet aut super preterita tantum et sic est reminiscentia, aut super futura tantum et sic est providentia, aut communiter super omnia et tunc aut sine ratione suadente et est cogitatio, aut cum ratione suadente ad unam partem contradictionis tantum et sic est proprio[249] aut ad utramque et sic est dubitatio. Et sic terminata est prima pars huius libri in qua determinavit de anima et de[250] spiritu divisim,

[At this point P143 becomes largely illegible, the rest of the text is taken mainly from W3. However where some reading of P143 can be made I have given it in the notes.[251]*]*

et sequitur illa pars et quia auxilium de deo**6**[252] in qua determinat differentiam spiritus et anime[253], et hec est principaliter intenta; et primo dat intentionem, secundo prosequitur[254]. dicamus**76**[255]. Et illa[256] in duas: in prima dat sex differencias inter spiritum et animam; secunda ibi et spiritus comprehenditur**77**; tertia ibi et spiritus cum separatur**78**; quarta ibi animamque**79**; quinta ibi animam quoque**80**; sexta ibi spiritus igitur**81**. In secunda cum enim esset**82** explanat duas ultimas differentias et illa in duas: in prima dat causam qualiter spiritus immediate recipit actiones anime; in secunda et

secundum quantitatem**83**[257] determinat diversitatem illius spiritus et hoc incipit ne crederet quod spiritus uniformiter recipiat actiones anime; et illa secunda in duas: in prima determinat eius diversitatem in communi, in secunda cuius ergo complexio**84** in speciali. Et illa[258] in duas: in prima determinat diversitatem spiritus in diversis hominibus, in secunda et propter hoc simpliciter**85**[259] determinat diversitatem eius in eodem homine. Prima in duas: in prima narrat quod intendit; in secunda et ideo fiunt**86**[260] confirmat hoc per tria signa, secunda ibi si mulieribus**87**, tertia ibi et similiter[261] . Et nota quod propter habundantiam humiditatis in pueris debilitantur spiritus ipsorum et esse naturali frigiditate que debetur complexioni puerorum similiter sui spiritus debilitantur. Et nota circa ultimam partem quod spiritus vitalis quando venit ad cerebrum, quia venit in membrum nove nature et novam virtutem anime, ideo novam recipit digestionem et non solum sit subtilior et clarior sed etiam novam recipit formam substantialem, sed quando defertur ab una cellula cerebri ad aliam, quia semper est in eodem membro et in conspectu eiusdem anime secundum virtutem redditur subtilior et clarior propter diuturniorem irradiationem anime novam tamen formam essentialem non recipit. Explicit.

A Translation of Adam of Buckfield's commentary on De differentia de spiritus et anime

The following translation is of the above text. Where the Latin of the manuscripts differs I have footnoted and given an alternative translation, if this is necessary. Translator's additions are included in brackets (< >). The translation is as close as possible to the Latin This is to highlight the technical terms such as *determinare*, and to highlight inconsistencies in the Latin: the verb *determinare* also appears as *determinare de*.

Interrogasti me et cetera. Since it has been determined[262] above[263] about the soul in itself and about the operations of the soul[264], that is to say in the book on the soul and in the books subalternated <to the book on the soul>, and because the diversity of operations of the soul itself follows the diversity of the instruments by the mediation of which the soul itself works, therefore Aristotle determined at the same time the nature of the instruments <of the soul>, and because one is the first organ of the soul, that is the spirit, by the mediation of which the soul flows into all the particular instruments <of the soul> and thus operates sense and movement, therefore for the sake of usefulness this author, that is Constabulus, intends to determine about the spirit; and because the spirit exists in a final sense for the soul so that it may immediately receive the influence of the soul (it is able to do this because it is a subtle and clear body), therefore at the same time he determines about the soul and also the difference between the spirit and the soul, and because his topic is completed in this difference this book is therefore named from this fact, as if from a conclusion. It is the last of the books subalternated to the book on the soul both because it is about good existence, and the others merely existence, and because the spirit, which is the subject-matter of this book, is the common instrument of all the operations of the soul which are the subject-matter of the preceding books. This book is therefore divided into two parts, the proem and the tractate. The tractate begins here:[265] *spiritus est quoddam corpus*. The first part is divided into two parts, in the first of which he gives his intention; in the second part he gives the mode of procedure with its reason.[266] The second part begins here: *et usus suum*. The first part is divided into two parts; in the first part he gives his intention, and note that he writes to a certain friend of his, that is Luca; in the second part he specifies his intention, through which specification he avoids arrogance by not claiming the work as his own, or as an original author, but he produced this book naming many philosophers.

Then this part follows:[267] *et usus sum*, in which he gives the mode of procedure; and it is

divided in two parts because he gives the mode of procedure first in general terms, second in specific terms. The second begins here: *nunc autem incipiens dicam*. At this point the first part is divided in two parts because first he gives the mode of procedure in general terms, secondly he supplies a twofold reason for it. The second part begins here: *quia novi te*. Here this part is divided in two parts following the two reasons. The second part begins here *et credo*.

Spiritus est quoddam corpus subtile et cetera.

Since the proemial part has been determined, here begins the executive part, and it is divided into two parts. In the first part he determines about the soul and spirit separately. In the second part he determines the difference between them, and the second part begins here: *et quia auxiliante deo*. The first part is also divided into two parts; in the first he determines about the spirit, in the second about the soul; the second begins here: *narrare aliquid*. The first part is divided into two parts; in the first, having put forward a division of the spirit into animal and vital, he defines them both. In the second part, to illustrate their definitions, he determines both individually. The second begins here: *quidam ex laudabilibus*. The first part has two parts because there are two definitions. The second begins here: *et similiter*.

Note that in the definition of the vital spirit he first posits a *genus*[268] when he says *corpus subtile*. Then he deals with three points in place of a difference[269], namely the origin of the spirit and the way through which he is brought back to its operation.

Note also that although there is spirit in animals as in man, because he determines about the spirit in a final sense for the purpose of understanding the spirit that is in the human body, so therefore he defines the spirit as it is in the human body. But nevertheless the definition is to be understood for every vital spirit.

Note also that in the human body there are two types of vein; namely the non-pulsating veins, in which the blood is carried through the whole body, which are commonly called 'veins'. Also there

are pulsating veins in which the vital spirit is carried through the whole body, and these are commonly called arteries; in this book they are called the veins of the pulse.

Note also that in the definition of the animal spirit there must be found a *genus* posited in the definition of the vital spirit, namely that it is a subtle body. Then there are [posited] the three said points in place of a difference as in the other definition. Then this part follows: *Quidam ex laudabilibus*, in which he determines about each of the spirits individually. It is divided into two parts, and in the first part he determines about the vital spirit, and in the second about the animal spirit. The second part begins here: *spiritus autem qui procedit*. The first part is divided into two parts; in the first he determines the origin or generation of the vital spirit. In the second he determines its effects. The second begins here: *et ex ventriculo*.

Note that, although the vital spirit is in the left ventricle of the heart, yet it is transferred into the right ventricle and from there it leaves [the heart], according to the author.

Then this part follows: *et ex ventriculo*, in which he determines its effects. It is divided into two; in the first he determines how and where the vital spirit produces breath. In the second he determines where and how it makes life. The second begins here: *alteram vero venam*. The first part is divided into two; in the first he determines about breath and in the second how the spirit makes breath. The second begins here: *cor autem colligatur*.

Note that the two veins coming out from the heart, which he mentions, are parts of the great vein mentioned at the end of the first book of *de sompno et vigilia*[270]. He does not mention the *vena adorti* (aorta) which is the first of the non-pulsating veins because it does not relate to this topic.

Then follows this part: *cor autem*, in which he shows how the spirit produces breath. It is divided into two; in the first he determines in general terms how the spirit produces breath. In the second part he determines how this happens specifically. The second part begins here: *cor ergo extendere*. The first part is divided into two, the principal part and the correlated part. The second

part begins here: *et ideo pulsus*.

Then this part follows: *cor ergo*, in which he shows how the spirit produces breath in specific terms. It is divided into two; in the first he determines how the vital spirit produces inhalation and the reason for this. In the second he determines how the heart produces exhalation and the reason for this. The second begins here: *cum cor colligatur*.

Note concerning the correlated part that the pulse is spoken of commonly and properly. The pulse is strictly called the motor of the heart and the arteries ramifying through the whole body, following the process of diastole, that is, the elevation and so the cooling of the innate heat and the expulsion of vaporous superfluities. The word 'pulse' is broadly applied to (i) what is strictly called the pulse and (ii) the pulse in the breath which is in the windpipe. In the first place the pulse is taken to be in the body; in the second place the pulse is taken, as he says immediately before, to be the pulse of the whole body that happens through the motion of the heart[271].

Also note about this part, in which he teaches how exhalation happens, that the heart is the first and remote cause of breath, the lung being the proximate cause of it. The contradiction in the words of Aristotle must be solved in this way, for in the book *De sompno et vigilia*[272] he says that the heart is the root and beginning of life and breath, and in the second book of the Posterior Analytics he says that parts do not respire because they do not have a lung. From this he meant that the possession of a lung is the proper cause of respiration.

Then follows this part: *alteram vero*, in which he determines where and how the vital spirit generates life. It is divided into two; in the first he states his intention, and in the second he supports this intention through a sign[273]. The second begins here: *et videntur*. The first part is divided into two; in the first he determines where the vital spirit makes life which [is carried] in the arteries branching through the whole body. In the second he determines how the [vital spirit] makes life. The second begins here: *et hec est causa*. Note concerning this second part that the pulse is the nearer

cause of life than is breath, because without pulse there is no life in any limb; even without breath life lasts through motion [of the pulse] for a time, although only a short time.

Then follows this part: *et videntur*, in which he confirms through a sign what he said. It is divided into two parts; in the first he gives the sign; in the second, because he mentioned the exit of the vital spirit in death, he digresses to determining its exit. The second begins here: *et eius exitus a corpore*. This part is divided into two parts; in the first he indicates the subject of discussion; in the second he excuses himself from making certain determinations in this book. The second begins here: *et apparitio eius*. The first part is divided into three; in the first he shows by which way the spirit leaves [the body]. In the second he determines the time of its exit; it begins here: *et eius exitus ex ore*. In the third he determines the cause for its exit; this part begins here: *causa autem*.

Note, concerning the exit of the spirit at the time of death, that coldness and dryness which are then becoming dominant in the limbs and first in the exterior limbs drive off the vital spirit, which is hot and humid, from those limbs through the arteries to the heart. Then the vital spirit is expelled through the wind-pipe of the lungs and out through of the mouth. For that reason at the time of death breath is deep because it is drawn from afar, for it draws the spirit from the individual parts and then exhales it until all the spirit and life recedes at the same time, whence appears a leaping of the spirit from the exterior part of the organ all the way to the interior, in dying people. In those people with a good natural balance [of humours] the spirit leaves with difficulty and there is a difficult death. In those with a weak natural balance [of humours] it goes out easily and there is an easy death.

Finally, when he says *patet autem ex hoc*, he recapitulates what has been determined concerning the vital spirit, and he concludes its definition which he places at the beginning. When he says *Iam ergo patet*, the remaining opinion is clear in the text.

Spiritus vero qui procedit. Having determined about the vital spirit, here he determines about the animal spirit specifically. This part is divided in two; in the first part he determines the

animal spirit's generation or beginning, and in the second part he declares its effects. The second part begins here: *deinde transit*. The first part is in two; in the first he determines its origin in general terms, and in the second in specific terms. The second part begins here: *quia divisiones*. This part, in which he determines in specific terms, is in three parts. In the first part, because the animal spirit arises from the vital, he determines how the vital spirit reaches the brain. In the second part he determines the spatial formation of the brain, the understanding of which is necessary for the origin of the animal spirit[274]. The second part begins here: *cerebrum autem*.

Note that there are two reasons why the brain is divided into three sections, the first in the front, [the second] in the middle, [and the third] at the back of the brain[275]. In the first, that is anterior, section there are two ventricles. In the middle section there is only one. Similarly there is one in the back section. It is said that the middle section joins to the anterior ventricles but not to the posterior section. This is because the passageway from these two ventricles to the middle section is always open, having no body blocking it, but the passageway from the middle ventricle to the posterior section is blocked by a body in the middle. In the third part, which begins here: *pulsus vero*, he determines how the animal spirit is generated from the vital, pointing out that once the vital spirit is carried to the anterior part of the brain, it receives in its ventricles a new decoction through the temperament of the brain and through the power of the vigorous soul in the brain. It becomes animal through the subtlety and clarity which it receives.

Then follows this part: *deinde transit*, in which he determines about the effects of the animal spirit, and it is divided into two parts. In the first part he determines where it creates its effects in general terms. In the second part he determines how and where it makes them in specific terms. The second part begins here: *cum ergo apertum*. The first part is divided into two. In the first he shows that, after its generation, the animal spirit makes its effects in the ventricles of the brain by travelling from one to another. In the second part he notes the spatial disposition of the other ventricles. The

second begins here: *in ipso transitu*.

Then follows this part: *cum ergo apertum*, in which he determines about the effects of the animal spirit specifically. It is divided into two. In the first he determines about the effects. In the second he explains everything that has been previously determined through one commonly applicable reason. The second part begins here: *et fortassis accidit*. The first part is divided into two. In the first part he determines how the animal spirit produces thought. In the second part he determines how it produces progressive movement. The second part begins here: *procedit quoque*. The first part is in three. In the first he shows how and where the animal spirit produces memory. In the second he shows how and where it produces thought and intellect. It begins here: *intellectus enim*. In the third part he shows how and where the animal spirit produces the senses. It begins here: *ex ventriculo autem*. The first part is divided into three. In the first he shows how and where the animal spirit produces memory. In the second part he determines the diversity happening to the memory in different men. It begins here: *illo vero*. In the third part he proves by a sign what he said before: *et ideo accidit*

Then follows this part: *pars intellectus enim*, in which he determines how the [animal spirit] produces intellect where memory is continuous in the posterior ventricle[276]: *enim* pro *quia* et cetera.

Note here understanding of anything and even thinking, is impeded by use of the memory, as is said in the first book of the posterior [analytics]. It is divided into three. In the first it makes this[277]. In the second he gives the sign [that points to] the declaration of what has previously been determined. It begins here: *et ideo accidit*. In the third part he determines how this spirit in different ways causes intellect through diversity. It begins here: *spiritus autem* et cetera.

Et ex ventriculo et cetera. Having shown in what way the animal spirit produces memory and intellect, here he shows how it operates the senses. This part is divided into two. In the first part this is made plain. In the second part he confirms this through signs. The second begins here: *et*

indicium huius.

Note concerning the first part that there are two types of 'nerves'. There are certain solid 'nerves' <sinews> which are the most solid part of the animal except the bone, and nerves of this kind are for sustaining the heart's bellows as Aristotle says in *De animalibus*[278], and are not the kind that, being sensitive, are for managing the senses and movement. For thus he shows there are other and continuous nerves in which the animal spirits, managing sense and movement, are carried from the brain to the individual limbs. A nerve of this kind is suggested by the Commentator to be an instrument of touch, taste, and also sight. Because, as Avicenna says, vision is based in the crystalline humour and hollow nerve[279]. On account of this he [Avicenna] subtlety discusses such a nerve. It is subtler than another 'nerve', however it is thicker and more solid than vein or artery. He does not contradict in the book what Aristotle says in the book *De animalibus*[280] that there is no nerve in the brain nor veins, because here he speaks about a vein and a 'nerve' <sinew> in the correct manner of speaking, which are solid and not hollow.

Note also that he calls all parts of the body in which there is some other concoction ...[281] The uvula is a certain membrane which sometimes is expanded before the entrance to the throat impeding taste and speech.

Then follows this part: *procedit quoque* in which the author[282] states how the spirit works progressive motion. It is divided into two. In the first part he describes this. In the second part he declares this through a sign. The second part begins here: *cuius rei*. This second part is divided into two. In the first part he gives a common sign for this. In the second part, *et fortassis*, he declares a certain common explanation why everything previously described about the animal spirit is as it is. Whenever there is some impediment to the animal spirit existing in the ventricles of the brain, either from its own natural balance, or from another external cause, as when bad vapours arise to a commingling in the brain of these with the spirit: then the senses, thought and motion of the animal

are universally destroyed.[283] But this could not happen unless the animal spirit operates sense and motion. Therefore it is obvious that it does operate them. This part is therefore divided into two. In the first part he posits the major [premiss] and proves it. In the second part he brings in a conclusion. The second part begins here: *probatur ergo*. The first part is divided into two. In the first part he posits the major [premiss] and says *fortassis* because without some proper cause the destruction of reason can only happen accidentally, as from the outside, in the same way that the sense [of sight] can be destroyed by looking at the sun. In the second *verba gratia* he proves this induction. This second part is divided into four. In the first part he makes an induction about the spirit in the anterior part of the brain. In the second part [he makes an induction] about [the spirit] in the middle of the brain. It begins here *verba gratia si affuerit*. In the third part [he makes an induction about] that which is in the posterior part of the brain. It begins here: et *si fuerit impedimentum*. Similarly in the fourth part he makes an induction about everything. It begins here: *et si fuerit in hiis*.

Note in regard to this part that *melancolia* is in one sense a natural humour, one of four natural humours. Thus it is present in any animal. Those whose complexional balance is dominated by this humour are called melancholics. *Melancolia* is spoken about in another sense, that is, it is a certain infirmity, which is a disturbance of reason or madness, and thus mad people are called 'melancholic'. This disease has got this name in this way, because when this humour, namely melancholia, becomes excessive in the whole animal then there are melancholic fumes, which are black and dry and in opposition to the brain and animal spirit. For the spirit is an airy substance and is clear, and the brain is white and humid. The fumes are raised upwards and mix themselves with the spirit, which is in the middle or in the higher part of the brain, and disturb the act of reason.

Note also about the conclusion that the same spirit, according to its substance, works the senses and *fantasia*. Therefore some say there are two cells in the anterior part of the brain, so that in one the spirit operates the *sensus communis* and in the other *fantasia*.

Lastly he gives a summary to everything discussed concerning either spirit from the beginning of the book.

Note here that air is said to be the nutrition of the vital spirit, not because air turns into spirit, but because air cools the spirit lest the heart and the spirit itself suffocate by its natural heat. This is *constat ergo*.

[*N*]*arrare aliud de anima*. Having determined about the spirit, here he determines about the soul. It is divided into two. In the first part he determines the difficulty of determining about the soul with the reason for this difficulty. In the second part he determines about this reason. It begins here: *sed modo commemorabimus*. This second part is further divided in two. In the first part he gives his intention and mode of procedure. In the second part he follows this up. The second begins here: *Dicamus ergo*.

This second part, in which he follows up his intention, *dicamus ergo* is divided in two. In the first part he posits two definitions of the soul and explains the reasons[284]. In the second part he enumerates the parts of the soul. The second part begins here: *et quia iam exposuimus*. The first part is divided in two. In the first he posits two definitions of the soul. The first is Plato's and the second is Aristotle's. It begins here: *aristotelis vero*. In the second he explains the reasons. The second begins here: *nunc ergo exponamus*.

This second part, *nunc ergo exponamus*, is divided in two. In the first part he explains the first definition, which was Plato's. In the second part he explains the second definition, which is Aristotle's. The second part begins here: *et quia iam exposuimus*. The first part is divided in three, because Plato's definition contains three particles. In the first part he proves the first particle, that the soul is a substance. In the second part he proves the second particle, that the soul is incorporeal. It begins here: *et qualiter manifestum*. In the third part he explains the third particle, that the soul is a moving body[sic][285]. It begins here: *nunc exponemus*. The first part has two parts, because it has two

reasons. The second part begins here: *item omne quod movetur*.

Then follows this part, *et qualiter manifestum*, in which he proves the second particle, that the soul is incorporeal. It is divided into five particles because it has five reasons. The second part begins here: *item omne corpus*.

If it is objected here that a celestial body is subject only to sight, then it must be replied that since it is subject to sight, as a consequence it is subject to the *sensus communis*[286], which is a sense distinct from the [physical] parts[287], and so it is subject to many senses. The third argument begins here: *item omne corpus*. The fourth [begins] here: *et interum si anima*.

Note that since the soul is a most subtle substance, as everybody says, if it were a body then it would be most subtle, as an element, such as fire or air, would be. For although the spirit is a subtle body, it is not however said to be subtle in regard to all bodies simply, but in regard to mixed bodies. For air exceeds the spirit in subtlety, and so it follows that the soul is a subtle body as is air or fire. The fifth begins here: *item si fuerit*.

Note here that he calls the 'completive' form of thing *fortitudinem* because it gives completion to the thing and is the beginning of its strength and vigour.

Then follows this part, *nunc exponamus*, in which he explains the third particle, that the soul is a moving body[sic][288]. It is divided in two. In the first part he distinguishes the modes of moving bodies. In the second part he applies those four modes of moving bodies to the soul, which is his principal intention. The second part begins here: *sic anima movet corpus*.

Note that although Plato's definition is posited, nevertheless Plato says something different in what he wrote. For Plato claimed that the soul was moved by itself but this author claims that it is in itself immobile. So he omits this particle in his definition.

Et quia iam exposuimus. Having explained Plato's definition, here he intends to explain Aristotle's definition. This part is divided in two. In the first part he gives his intention. In the second

part he follows this through. The second begins here: *qui ita diffinit*. This second part is divided in two. In the first part he repeats the definition given above. He adds to it another, and this second definition is the one that is given in the first part of the second book of *De anima*. He adds this instrumental particle to the first. In the second part he expounds them. The second part begins here: *redeamus adhoc*. This second part is divided in two. In the first part he explains the more complete second definition. In the second part he reduces the first definition to this one. The second part begins here: *quod autem videtur corrumpere*. The first part is divided in two. In the first part he explains the second definition[289]. In the second part, *et si ita est*, he concludes it as already explained[290]. The first part is divided in two. In the first he shows that the soul is a perfection and of what it is the perfection. The second part begins here: *et omnis species*. The first part is divided in two. In the first he shows that the soul is a perfection; in the second he shows of what it is the perfection; the second begins here: *et quia nunc probatur*.

Note here that perfection is talked about in two ways, a first and a second. In one[291] way following what he says here, the form considered in itself is the first perfection of a thing; the action resulting from a perfected form is the second. This same distinction is posited in the first part of the second book of *De anima*.[292] In another way the first perfection is said to be the substantial form, and the second perfection is said to be the accidental form.

Then follows this part: *et quia probatur*, in which he shows of what the soul is the perfection. It is divided in two. In the first part he shows that the soul is the perfection of the body. In the second part he shows of what body the soul is the perfection. The second part begins here: *modi autem corporum*. This second part is divided in two. In the first part he shows that the soul is the perfection of the natural body. In the second part he shows of which natural body. The second part begins here: *modi vero corporis*. This second part is divided in two In the first part he shows that the soul is the perfection of the composite natural body. In the second of a body composite in an

instrumental way. The second part begins here: *et neccessitate est*. This second part has two parts because he posits two reasons. The first is common to all living things. The second is particular to animals. It begins here: *multiplicantur quoque, et cetera.*

Et quia iam exposuimus utrasque diffinitiones. In this part he determines about the parts of the soul. It is divided in two. In the first he gives his intention. In the second he follows this up. The second begins here: *et dicamus*. This second part is divided in two. In the first part he determines about the parts of the soul in themselves. In the second part he determines about their operations. The second part begins here: *opus autem*. The first part is divided in two. In the first part he enumerates the parts of the soul. In the second part he shows what parts are where. The second begins here: *anima autem vegetabilis*.

Then follows this part, *opus autem*, in which he determines about the operations of the parts [of the soul]. It is divided in three. In the first part he determines the operation of the vegetative soul. In the second part he determines the operations of the sensitive soul. It begins here: *et opera anime*. In the third he determines the operations of the rational soul. It begins here: *opera vero*.

Note concerning the first part that the common operation of this, allowed to the vegetative soul only, is to nourish, for it always operates this process while it exists. But it does not always cause growth or generation. Andso he names the first operation of the vegetative soul in the text but not the other two operations although they are the rightful properties of the vegetative soul.

Note also concerning the last part that the sufficiency of the operations of the intellective or rational soul is apprehension by the rational soul, which applies either to the present only and thus it is called inner-sight, or to the past only and thus is reminiscence, or to the future only and thus is called providence, or applies commonly to everything, and then either without persuasive reason, in which case it is thinking, or with reason persuading it [to support] one side of a contradiction, and thus it is ...[293], or applying to both sides and this is doubt Thus is ended the first part of this book, in

which he determined about the soul and about the spirit separately.

[The rest of the translation has been made from the text of W3.]

This part follows, *et quia auxilium deo*, in which he determines the difference between the spirit and the soul. This is principally the intention. And first he gives his intention, secondly he follows this up: *dicamus*. This part is divided in two. In the first part he gives six differences between the spirit and the soul. The second begins here: *et spiritus comprehenditur*. The third begins here: *et spiritus cum separatur*. The fourth begins here: *animamque*. The fifth begins here: *animam quoque*. The sixth begins here: *spiritus igitur*. In the second part, *cum enim esset*, he explains the last two differences. This part is divided in two. In the first part he gives the reason for the way in which the spirit immediately receives the actions of the soul. In the second part, *et secundum quantitatem*, he determines the diversity of this spirit and he begins this lest it be believed that the spirit uniformly receives the actions of the soul This second part is divided in two. In the first part he determines the spirit's diversity in general terms. In the second part, *cuius ergo complexio*, he determines it in specific terms. This part is divided in two. In the first he determines the diversity of the spirit in different men. In the second, *et propter hoc simpliciter*, he determines the diversity of the spirit in the same man. The first part is divided in two. In the first he states what he intends. In the second, *et ideo fiunt*, he confirms this through ...[294] signs. The second begins here *si mulieribus*. The third part begins here *et similiter*[295]. Note that on account of the abundance of humidity in boys their spirit and being are weakened by a natural coldness which is due to the complexional balance of boys; similarly their spirits are weakened. Note concerning the final part that when the vital spirit comes to the brain, because it comes into a part with a new nature, it receives a new power of the soul, or rather it receives a new concoction, and it is not only more subtle and clearer but also it receives a new

substantial form. But when <the spirit> is carried from one cell of the brain to another, because it is always in the same organ and in the sight of the same soul in terms of power, it is rendered more subtle and clearer on account of the longer exposure to the soul. However it does not receive a new essential form. Explicit.

The Sources for Adam of Buckfield's commentary on the Liber de differentia de spiritus et anime

Adam uses a number of sources in writing his commentary upon Costa ben Luca's text. This shows us what texts held the answers for questions raised by this treatise for the thirteenth-century master.

Adam names several authorities in his commentary: he calls Aristotle by his name and nickname the *philosophus*, and he treats Averroes in the same way, naming him but also terming him the 'commentator'. Avicenna is mentioned by name once, *'quia sicut dicit Avicenna'*.[296] Adam uses the obvious authority of Avicenna to back up a statement.

We have already noted the Platonic influence on the *De differentia*. Plato's definition of the soul is mentioned by Adam,[297] obviously an important doctrine for this subject. However as we have discussed above there is manuscript evidence that the *Phaedo* was not known directly in thirteenth-century Oxford university.

Throughout Adam's commentary he makes heavy use of Aristotelian works, much more than of any other author. Immediately he mentions Aristotle's book on the soul, *in libro de anima*.[298] Obviously this Aristotelian work is bound to be heavily influential on any subsequent medieval authors, whether Arab or later Latin, writing on this subject. Adam then mentions Aristotle again; *Ideo simul determinavit aristotiles naturam instrumentorum*

'Moreover Aristotle has determined the nature of the instruments [of the soul].[299] Adam points to this as it is obviously central to the whole treatise.

He next refers to the book *de sompno et vigilia*. Again he mentions Aristotle by name: *et sic debet solui contrarietas in dictis Aristotelis*. In the same line he mentions the *De sompno et vigilia* again. Later he quotes the Posterior Analytics. He also mentions Aristotle in connection with *De animalibus* twice. He mentions the *De anima* again with the terms Substantial and Accidental forms, which are medieval developments of Aristotle.

It appears obvious that Aristotle is the mainstay of reference for Adam in this work. He is the authority most called upon to justify a point. The original text of Costa ben Luca mentions that it was drawn from the opinions of many philosophers, but by the time of Adam's commentary it seems that he can and is willing to rely more on Aristotle than anyone else. The dominance of Aristotle for reference reflects a dominance of Aristotle as the authority to which one refers. This seems hardly surprising when it is considered that the text he is commenting upon forms part of the *Corpus vetustius*, composed mainly of Aristotelian works, and that most of the arts curriculum was Aristotelian.

Adam's division and analysis of text

Adam deals with the whole treatise as one. His is an example of explicature commentary rather than of *notae* on the text.

In Adam's commentary we find traces of an *accessus* or 'Aristotelian prologue'.[300] The 'Aristotelian prologue' describes four 'causes' that were considered inherent in a text, theses were the *causa efficiens*, *causa materialis*, *causa formalis* and the *causa finalis*. That

is the efficient, material, fomal and final causes. These dealt with who wrote the work, with what, in what way and why. Adam mentions the *modum procedendi* three times in the introductory part of his commentary, this is part of the *causa formalis* or formal cause of writing. This cause deals with the structure the author has placed on to the contents of his work. It was considered to be a twofold form divided into the *forma tractandi* (the *modus agendi* or *modus procedendi*) and the *forma tractatus.* The modus procedendi gives the author's method of treatment or procedure for the text.[301] In the sixth line of Adam's commentary he writes *ideo utilitatis causa intendit auctor iste scilicet constabulus determinare de spiritu; et quia spiritus est finaliter propter animam ut immediate recipiat anime influenciam; quod potest facere eo quod est corpus subtile et clarum, ideo simul determinat de anima et etiam de differencia spiritus ad anima.* He mentions here the medieval literary concept of *utilitas,* Minnis writes;

> This heading introduced a consideration of the ultimate usefulness of the work, i.e. the reason it was part of a Christian curriculum. The utility of the Bible was self evident; works of lesser authority required some justification.[302]

From a Christian point of view the most useful thing about Costa ben Luca's work is that he determines about the spirit and the soul and the difference between them, ideas about the soul as has been said before were of central concern for the medieval Christians.

He lays out the ground for his discussion and this is most certainly very much within the Aristotelian framework of things. In this introductory passage, *Cum determinatum....in libris precedentibus,* Adam is placing this work within the accepted framework of

Aristotelian thought concerning the soul. This part of the *accessus* is a rational part of the commentary explaining the place of the contents in accepted learning; as with *et est ultimus inter libros sub alternatos libro de anima*. Minnis describes this by the phrase *cui parti philosophiae supponitur*, i.e., which branch of learnig this work belonged.[303]

In his commentary Adam separates the contents of the text of *De differentia* into its constituent parts e.g. proemial or executive, *dividitur ergo iste liber in duas partes, in prohemium et tractatum*.[304] This method is typical of Adam of Buckfield.[305] He then subdivides these parts again until each individual section is mentioned, *tunc sequitur illa pars... et dividitur in duas*,[306] and this is reflected in the *lemmata*. For each part discussed in his commentary Adam gives a *lemma* so that the reader can identify the passage in Costa's text; this allows easy access to Costa's text. (As said above, these have been numbered accordingly). In this way Adam clarifies the contents of the text. He will then describe what is dealt with within each division, until each individual point in Costa's text is mentioned; and thus he gives a detailed division and analysis of the text. It is the order in which he presents the divisions that is unfamiliar to the modern western intellectual reader who expects more of a chronological sequence of division. This method is confusing to the modern reader and appears a bit dense. However it was common practice in exposition and must have been straightforward to the medieval reader: "We find this division of books, among others, in Adam of Buckfield (cf. Canon. Miscel. lat. MS. 322, fol. 47va) and Albertus the Great; it was mainly used by English writers."[307]

Indeed, the widespread use of Adam's work in Europe testifies to the clarity of this style to the medieval mind.[308] This highlights different approaches and different thought

patterns between the medieval and modern scholar, the difference in intellectual culture. "Any understanding of the mind of the middle ages must be based upon the commentaries that were known, used and approved in the schools in the thirteenth and fourteenth centuries."[309] Thomson also points to Adam as an exponent of this type of division of the text.[310] This type of division is again clearly seen in Adam's commentary on *De plantis* in London Wellcome Hist. Med. Libr.3 f.133.

Adam's problem solving; his role as a commentator

When Adam mentions Aristotle by name - '*et sic debet solui contrarietas in dictis Aristotelis*' - it highlights Adam's job as a commentator, clearing up difficulties and inconsistencies and resolving the point in question. This is what made him a widely read commentator. Likewise when Adam mentions Plato's definition of the soul (obviously an important doctrine for this subject) he also points out an inconsistency between Plato's theory and that given by Costa Ben Luca.[311]

> *Et nota quod <licet> diffinitio platonis ponatur tamen plato contradicit in hoc quod creaverit, plato enim posuit animam moveri per se sed iste auctor ponit eam esse per se immobilem. unde illam particulam in diffinitione obmisit.*

> Note that although Plato's definition is posited, nevertheless Plato says something different in what he wrote. For Plato claimed that the soul was moved by itself but this author claims that it is by itself immobile. So he omits this particle in

his definition.

Adam is fulfilling his job as commentator.

Nota etiam super illam partem in qua docet quomodo fit expiratio quod cor est prima et remota causa anelitus, pulmo autem proxima causa eius; et sic debet solui contrarietas in dictis Aristotelis, dicit enim in libro de sompno et vigilia quod radix est cor et principium vite et anelitus: et in secundo posteriorum dicit quod piscis non respirat quia non habet pulmonem, unde vult quod habere pulmonem sit propria causa respirationis.

Also note about this part in which he teaches how exhalation happens, that the heart is the first and remote cause of breath, the lung being the proximate cause of it. The contradiction in the words of Aristotle must be solved in this way,[312] for in the book *De sompno et vigilia* he says that the heart is the root and beginning of life and breath, and in the second book of the Posterior Analytics he says that parts do not respire because they do not have a lung. From this he meant that the possession of a lung is the proper cause of respiration.

We have seen Adam act as a commentator, solving textual problems. Adam was also a teacher. His commentaries, written whilst Adam taught, must be seen in the light of teaching and teaching methods employed at Oxford in the mid thirteenth century.

Disputations

Disputations were oral exercises carried out in the medieval universities; textual or topical questions were dealt with by an assembled group of students and masters and they were considered useful training, "There were three main varieties of these *quaestiones disputatae*, the *disputatio ordinaria*, the *disputatio de quolibet* and the *disputatio de sophismatibus* or *sophisma*."[313] The last of these was used only in the Arts faculty.

Adam's commentary tries to clear up questions about the original text in such a way as to suggest that these solutions were perhaps the product of actual *questiones disputatae*. The commentary fulfils the purpose of a *questio disputata*, that is, answering questions that arise out of a text more fully than can be achieved using marginal *glossae*; the text could possibly reflect material from a *disputatio ordinaria*.[314] It would not be surprising to find evidence of disputations within Adam's work, considering the educational background at Oxford:

> At the beginning of the thirteenth century we find traces of actual dialectical disputations in *physica* and in the *De anima* of John Blund, written *c.*1200.[315]

In this treatise Callus saw embodied 'the sum and substance of his oral teaching', and found traces of disputations as well as lectures. Disputations were also known to have developed under Grosseteste. Masters like Blund and Grosseteste and their teaching were undeniably influential in the subsequent medieval period. Adam was educated in this tradition

Examination of his commentary suggests that disputations may well contribute to his work. As another point it would seem obvious that advances made in oral discussion would find their way into written work, as discussion can be a fruitful way of answering problems.

Text as teaching

From what we know of Adam's life and the evidence that this commentary represents Adam's teaching, the commentary can be placed in the mid 1240's.[316] We have already seen that the text (*De differentia*) was part of specified course at Oxford.[317] As is often the case, the statutes reflect earlier practice; the writing of Adam's commentary ante-dates the statutes but from the contents it seems fairly clear that it is the product of actually teaching the subject. It is a commentary with the purpose of teaching. So it appears that this commentary was taught before the enactment of the statutes. Its inclusion in the *Corpus vetustius* is a clear indication of it being taught. In the *Corpus vetustius* manuscripts[318] the glosses represent actual lecture notes and therefore actual teaching.

The language and lay-out of the commentary confirms that the text is a product of Adam's teaching at Oxford. It is like a written account of his lecturing, and possibly disputations. As a commentary it implies the existence of a text that the student would either know or have; indeed Adam's text must be read in the light of the original since his text refers constantly to it. The *lemmata* in the text refer to the original text; Adam's text only makes sense as a teaching commentary as it only makes sense with close reference to another text. Adam systematically goes through the layout of the text which he is commenting upon, expanding and explaining any part that he feels needs attention.

Adam's commentaries represent a stage in the development of commentaries on

Aristotelian texts in the thirteenth century, as seen by Callus, and as we discussed in Chapter 1. According to Thomson, Adam was greatly influenced by Averroes, whom Adam calls the *commentator*. The resultant type of commentary is clearly seen in Adam's division and analysis of his subject matter. Now that we have seen the nature of his commentary we can recall that his commentary writing and teaching are at an important stage in the development of natural philosophy

Terminology of the text

Adam uses certain words and phrases throughout his commentaries, such phrases as *dat intentionem*, *dat causam*, *cum dicit* that are typical of Adam's writings.[319] *Dat intentionem* appears at least five times in Cambridge Peterhouse 143, *cum dicit* at least twice; *dat modum precedendi* also appears five times. He also divides and analyses his text in a characteristic way. He divides the text by use of *lemmata* and such phrases as *primo dividitur in duas partes*. Such divisions as these are extremely common in his commentaries in Peterhouse 143 and elsewhere,[320] but are unlikely to be unique to Adam. After a subdivision has been discussed often we often find the phrase *Tunc sequitur illa pars*, a phrase that is common and seems more typical of Adam's division of the text and layout of his commentary.

Adam makes common use of the word *Nota*. This word is in the imperative, which is interesting as I feel it reflects teaching. The use of the first and second persons and the imperative reflects a live audience.[321] It seems that when Adam uses this word he is either pointing to an important point in Costa's text or one that is less obvious or obscure. An

example of this is the important point *'Et nota quod in diffinitione spiritus vitalis primo ponit genus cum dicit corpus subtile'*, 'Note that in the definition of the vital spirit he first posits a *genus* when he says *corpus subtile*'. Adam seems to be making sure this point is heeded, that is, as if he were teaching. This ties in further with my belief that this text reflects Adam's teaching. *Nota* appears elsewhere.[322] We have now discussed how Adam's commentaries reflect his teaching as a master of arts and why he was a popular choice in the teaching of natural philosophy. In the next chapter we shall examine the evidence for the use of his commentaries in university teaching.

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1 . Armand Maurer, 'Adam of Buckfield *sententia super secundum metaphysicae*', in *Nine medieval thinkers*, ed. by J. Reginald O'Donnell (Toronto, 1955), pp.99-144.
2 . Judith C. Wilcox, 'The transmission and influence of Qusta ibn Luqa's "on the difference between the spirit and the soul' (unpublished doctoral dissertation, University of New York, 1985), p.iv.
3 . Wilcox, p.1.
4 . Wilcox, p.91.
5 . Costa-Ben-Luca, *De differentia Spiritus Et Animae*, ed. by C. S. Barach, in the series Biblotheca Philosophorum Mediae Aetatis and including *Excerpta e Libro Afredi Anglici De Motu Cordis* (Innsbruck, 1878, facimile Frankfurt: Graphischer Betrieb Heinz Saamer, 1968), pp.115-139 (p.118).
6 . E. G. Browne, *Arabian Medicine* (Cambridge: Cambridge University Press, 1962), p.27.
7 . Wilcox, p.143.
8 . Wilcox, p.209.
9 . Wilcox, p.143.
10 . Wilcox, p.209.
11 . Wilcox, p.143.
12 . Wilcox, pp.209-10.
13 . Wilcox, p.191.
14 . Wilcox, p.233.
15 . For an edition of the text of *De plantis* see 'Nicolaus Damascenus De plantis Five Translations' in *Aristoteles Semitico-Latinus* ed. by J. Drossart Lulofs and E. L. J. Poortman (Amsterdam: Noth-Holland publishing company, 1989), pp.465-73.
16 . Wilcox, p.145. Wilcox produced a better version of the text than the one in C. S. Barach's edition.
17 . Wilcox, p.167.
18 . Wilcox, p.221.
19 . *que excerpsi de libro platonis qui vocatur cadon et eius libro qui vocatur tymeus*, Wilcox,

p.143.
20 . Plato, *Phaedo*, in *The dialogues of Plato*, trans. Benjamin Jowett ed. by R. M. Hare and D. A. Russell (London: Sphere Books, 1970), I, 73a, p 123. This is one of the main themes of Socrates' argument in the dialogue.
20 . In the *prologus*.
21 . In the *prologus*.
22 . *aristotelis philosophi*, Wilcox, p.143.
23 . Charles Burnett, 'Magister Iohannes Hispalensis et Limenisis' and Qusta ibn Luqa's *De differentia spiritus et animae*: a Portuguese contribution to the arts curriculum', *Textos e Estudos*, 7-8 (1995), 221-267 (pp.247-8).
24 . Wilcox, p.209.
25 . Wilcox, p.iv.
26 . Lynn Thorndike, *History of magic and experimental science*, 3 vols (New York: Macmillan, 1923), II, p.73. However Charles Burnett gives Raymond's dates as 1125-52. Burnett, 'Magister Iohannes Hispalensis...', 221-267 (p.225).
27 . Thorndike, *History of magic...*, II, p.74.
28 . Thorndike, *History of magic...*, II, p.33.
29 . Callus, 'Introduction of Aristotelian...', 229-281 (p.251).
30 . Wilcox, p.91.
31 . Lecture by Charles Burnett, the 1996 Panizzi Lectures at the British Library.
32 . Charles Burnett, 'The introduction of Arabic learning into British Schools', in *The Introduction of Arabic philosophy into Europe*, ed. by Charles E., Butterworth and Andrée Kessel (Leiden: Blake, 1994), pp.40-57 (p.46).
33 . As Barach points out. See Costa-Ben-Luca, '*De differentia...* ', pp.115-139 (p.118).
34 . Costa-Ben-Luca, '*De differentia...*', pp.115-139 (p.117).
35 . See Lacombe, *Pars prior*, p.49.
36 . Burnett, 'Magister Iohannes Hispalensis...', 221-267 (pp.221-2).
37 . Burnett, 'Magister Iohannes Hispalensis...', 221-267 (p.221).
38 . Burnett, 'Magister Iohannes Hispalensis...', 221-267 (p.223).
39 . Wilcox, p.1.
40 . Lacombe, *Pars prior*, p.49.
41 . Lines 8-10 of Adam's commentary as given later in this chapter.
42 . *Philosophical issues in Aristotole's biology*, ed. by Allan Gotthelf and James G. Lennox (Cambridge: Cambridge University Press, 1987), p.5.
43 . This maybe a possible corruption of Costa Ben Luca, and may easily have been misread by a scribe.
44 . Thorndike, *History of magic...*, I, pp.657-8.
45 . McEvoy, *The philosophy of Robert Grosseteste*, p.237.
46 . So C.S.Barach claims; Costa-Ben-Luca, '*De differentia...*', pp.115-139 (p.118). A medieval scribe or translator may have written *constabulus* for Costa Ben Luca if he had been unable to read the original or was unaware of whom Costa was and assumed his name in itself was a mistake.
47 . Thomson, 'A further note...', 23-32 (p.25). Coimbra, Biblioteca Alcobaca 382 (179), now in the Biblioteca Nacional in Lisbon. And also in Erlangen Universitätsbibliothek 197 (Irm) f.154c *"actor iste (in marg.* Constabulus)" Thomson, 'A note on the works...', 55-87 (p.82).
48 . Burnett, 'Magister Iohannes Hispalensis...', 221-267 (p.223 footnote 4).
49 . Note Madrid, Biblioteca nacional 3314. f.100a, *De ordine autem libri de differentia spiritus et anime cum libris iam dictis non est curandum, quia non est compositus ab Aristotle.* From Adam's commentary on *De sensu et sensato* see Thomson, 'A note on the works...', 55-87 (p.75)

50 . *science*; this word has often been used for the body of natural philosophy that existed in the thirteenth century but it is anachronistic and misleading to use a word that weighs to heavily with modern period scientific connotations, the Latin *scientia* from which our word science evolved did not hold the same meaning to the Latins; 'knowledge' is a better if not wholly satisfactory translation.
51 . This information is from Thomson and Bataillon.
52 . Wellcome Medical-Library 3 (referred to as ms W3 from now on) reads *Determinavit superius de anima secundum .... Superius* translated as 'above' i.e. as in what has been written before, Adam says this because this text is placed last in the line of works relating to the soul and is usually found at the end or towards the end of a manuscript containing the *Corpus vetustius*.
53 . Note that Adam uses the phrase *'subalternati libro anima'* in *De sensu et sensato.* see Thomson, 'A note on the works...', 55-87 (p.78). and Madrid, Biblioteca nacional 3314 f.110c *In precedentibus libris subalternatis libro de anima.* see 8 Thomson, 'A note on the works...', 55-87 (p.81).
54 . W3 reads *consequitur.*
55 . W3 reads *Ar.*
56. P143 omits this word.
57 . W3 omits *autem.*

58 . This division is common in Adam's work; see Thomson, 'A note on the works...', 55-87 (p.83.
59 . W3 omits the phrase *tractatus incipit ibi.*
60. W3 adds *et cetera* after the lemma.
61 . W3 omits this word.
62. *Dat* has been nserted from W3.
63 . *Sua causa* inserted as marginal gloss; however in W3 *sua causa* is in the text.
64 . In W3 this lemma is placed after *in secunda*, before *modum precedendi.*
65 . *'et nota quod scribit cuidam amico suo scilicet luce'*; see Wilcox, p.143. *quem consta ben luce cuidam amico suo scriptori cuiusdam regis*, Adam seems to think Costa was writing to friend *Luce.*
66. The lemma *et ecce scribo* has been inserted from W3. It is not underlined in W3 but I have underlined it to show it is a lemma.
67 . The words *secunda ibi* are deleted (dotted underneath) and have been replaced by *per quam* from the margin. W3 reads *per quam.*
68 . W3 has a different arrangement for this paragraph: *pars in qua dat modum procedendi in communi tum duplici eius causa. prima incipit ibi. qui novi te. secunda ibi et credo. in alia parte ibi nunc autem incipiens. determinat modum procedendi in speciali.*
69 . In W3 this lemma is placed after *in secunda* and lacks the phrase *secunda ibi.*
70 . W3 omits this word.
71 . W3 omits the phrase *secunda ibi* and the lemma follows *in secunda, de anima* is included in the lemma.
72 . W3 omits this word.
73 . W3 omits *secunda ibi* and places the lemma after *in secunda.* In W3 the lemma reads *et quibusdam ex philosophis.*
74. P143 reads *vitam.* Here the reading from W3 improves the sense.
75 . W3 reads *fertur.*
76 . This word is taken from W3. The text appears corrupt here, the definition of arteries is given twice, and once wrongly attributed to veins.
77 . W3 reads *artherie.*
78. W3 reads *reperi.*
79 . P143 omits this word
80 . W3 omits *Tunc sequitur.*

81 . W3 omits this lemma.
82. W3 omits *et*.
83 . W3 omits *secunda ibi* and places the lemma after *in secunda*.
84 . W3 omits *secunda ibi* and places the lemma after *in secunda*. W3 also reads *et cetera* after the lemma.
85 . This word is not in P143 but is taken from W3.
86 . W3 reads *Secunda pars*.
87 . W3 omits lemma.
88. W3 omits *et*.
89 . W3 omits *secunda ibi* and places the lemma after *in secunda*.
90 . W3 omits *secunda ibi* and places the lemma after *in secunda*.
91 . W3 omits *Tunc sequitur pars illa cor autem in qua ostendit quomodo facit anelitum. et* and reads *secunda* instead.
92 . W3 omits *secunda ibi* and places the lemma after *in secunda*.
93 . W3 reads *prima habet*.
94 . W3 omits these two words.
95 . W3 reads for this sentence *alia pars in qua determinat in speciali*.
96 . *Secunda ibi* has deletion dots. There is *et qua* in the margin that is meant to replace it. This makes perfect sense in regard to the text.
97 . W3 omits *secunda ibi* and places the lemma after *in secunda*.
98 . W3 reads *artheriarum*.
99. Both manuscripts read *nati*, the insertion is mine.
100. This is the W3 reading, P143 seems to read *aneliti*.
101 . This word does not appear in P143 but is taken from W3.
102 . W3 omits these two words.
103 . W3 omits this lemma.
104. W3 omits *et*.
105 . W3 omits *secunda ibi* and places the lemma after *in secunda*.
106 . W3 reads *artheriis*.
107 . This words is missing from P143 but is found in W3.
108 . W3 omits *secunda ibi* and places the lemma after *in secunda*.
109 . This is underlined in W3, however this makes no sense as a lemma, it must be a mistake.
110 . W3 omits.
111 . This is *momentum* in P143.
112 . *Anelitu* is missing from P143 but is found in W3. I have added it here to aid the sense.
113 . W3 omits these two words.
114 . W3 omits lemma.
115 . W3 omits.
116 . W3 omits *secunda ibi* and places the lemma after *in secunda*.
117. W3 reads *illa*.
118 . W3 omits *secunda ibi* and places the lemma after *in secunda*.
119 . W3 omits *secunda ibi* and places the lemma after *in secunda*.
120 . W3 omits *ibi* and places the lemma after *in tertia*.
121 . The 'h' is in superscript.
122 . In margin of W3 is *unde egraditur spiritus in hora mortis conq^{a}litum*.
123 . W3 reads *artherias*.
124 . W3 reads *exspirat*.
125 . W3 reads *ab exteriori*.

126 . W3 reads *ultime cumdicit.*
127 . P143 omits the lemma *patet autem ex hoc.*
128 . In W3 this lemma is not underlined,
129 . W3 omits *secunda ibi* and places the lemma after *in secunda.* In W3 the lemma is not underlined.
130 . W3 omits *secunda ibi* and places the lemma after *in secunda.*
131 . We reads *et illa in tres*
132 . W3 omits *secunda ibi* and places the lemma after *in secunda.*
133 . W3 omits this word.
134 . W3 omits *que ibi incipit.*
135 . W3 reads *Illa pars.*
136 . W3 omits the lemma.
137 . W3 omits *et.*
138 . W3 omits *secunda ibi* and places the lemma after *in secunda.*
139 . W3 omits *secunda ibi* and places the lemma after *in secunda.*
140 . W3 reads *Illa pars.*
141 . W3 omits the lemma.
142 . W3 omits *in speciali. et.*
143 . W3 omits *in duas.*
144 . P143 omits *declarat*, so it has been taken from W3.
145 . W3 omits *quomodo.*
146 . W3 omits *secunda ibi* and places the lemma after *in secunda.* W3 also omits *accidit.*
147 . W3 omits *secunda ibi* and places the lemma after *in secunda.*
148 . W3 omits *ibi* and places the lemma after *in secunda.*
149 . W3 omits *ibi* and places the lemma after *in tertia.*
150 . P143 omits these words so I have inserted them from W3.
151 . W3 omitts *ibi* and places the lemma after *in secunda.*
152 . P143 omits a lemma here that is found in W3.
153 . W3 omits *Tunc sequitur.*
154 . W3 omits lemma.
155 . In W3 *quia* is not underlined and *et cetera* is omitted.
156 . W3 omits *primo.*
157 . W3 omits *et dividitur in tres primo facit hoc.*
158 . W3 omits *ibi* and places the lemma after *in secunda.*
159 . W3 omits *ibi* and places the lemma after *in tertia.*
160 . W3 omits *et cetera.*
161 . W3 omits *et cetera.*
162 . W3 reads *manifestat.*
163 . W3 omits *secunda ibi* and places the lemma after *in secunda.*
164. *Sunt* is inserted from W3
165. W3 omits *et.*
166. W3 reads *grossior.*
167 . W3 reads *artheria.*
156. See Chapter 5 gloss 382.
169 . W3 reads *et sequitur illa pars.*
170 . W3 reads *Aristoteles.*
171 . W3 omits *secunda ibi* and places the lemma after *in secunda.*
172. W3 omits *secunda.*

173 . P143 omits *et fortassis in qua*. It has been taken from W3.
174 . This abbreviation looks nothing like the very usual one for *spiritus*; however it is clear in W3, and this reading makes sense.
175 . W3 omits *secunda ibi* and places the lemma after *in secunda*.
176 . W3 omits *ibi* and places the lemma after *in secunda*.
177 . W3 omits *ibi* and places the lemma after *in tertia*.
178 . W3 omits *ibi* and places the lemma after *in quarta*.
179 . W3 omits *unus*.
180. W3 omits *alio*.
181 . This word is dotted, perhaps suggesting the singular third person as a correction, *dicitur* is found in W3.
182 . W3 reads *iste*.
183 . W3 reads *cellule*.
184. Although P143 omits the 'm', it is clear in W3.
185 . W3 omits *ibi* and places the lemma after *in secunda*.
186 . W3 reads *et illa in duas* for *hec secunda adhuc dividitur in duas*.
187 . W3 omits *secunda ibi* and places the lemma after *secunda*.
188 , W3 reads *et illa* for *hec ....dividitur*.
189 . W3 omits *eas*.
190 . W3 reads *numerat*.
191 . W3 omits *secunda ibi* and places the lemma after *in secunda*.
192. W3 omits *in prima*.
193 . W3 omits *secunda ibi* and places the lemma after *in secunda*. In W3 the lemma is not underlined.
194 . W3 reads *et hec*.
195 . W3 does not repeat the lemma as P143 does.
196 . W3 omits *dividitur*.
197 . W3 omits *secunda ibi* and places the lemma after *in secunda*.
198 . W3 omits *ibi* and places the lemma after *in secunda*.
199 . W3 omits *ibi* and places the lemma after *in tertia*.
200 . W3 reads *secunda pars habet*, omitting *Tunc sequitur illa pars et qualiter manifestum in qua probat secunda particulam scilicet que anima est incorporea. et dividitur in.*
201 . W3 reads *obicitur*.
202 . In W3 this lemma is not underlined.
203 . In W3 this lemma is not underlined.
204 . W3 reads *sicut*.
205 . In W3 this lemma is not underlined.
206 . W3 reads *tertia pars* for *Tunc sequitur illa pars nunc exponamus in qua exponit tertia particulam scilicet quod anima est movens corpus. et*
207 . W3 omits *illos* and reads *unde resiunt*?.
208. W3 reads *moventis et ad adaptat*.
209 . W3 omits *secunda ibi* and lemma.
210 . Not in P143 but in W3.
211 . W3 reads *exponatur*.
212 . W3 reads *omisit*.
157. W3 omits *secunda ibi* and places the lemma earlier after *in secunda*.
214 . W3 reads *et illa*.
215 . W3 omits *dividitur*.

216 . W3 omits *secunda ibi* and places the lemma earlier after *in secunda*.
217 . W3 reads *et illa*.
218 . *quod autem videtur corrumpere*. Does this lemma refer to the following repetition? This lemma may have originally been a gloss that has been incorporated in the text possibly by Adam or the text he was working from being unaware that it was not part of the original. W3 gives the lemma as *quod autem prima*.
219 . This passage *prima ... explanata* is omitted from P143 but is found in W3.
220 . *et cuius perfectio* is not in W3, in P143 the phrase has been introduced by dittography from the follwong sentence in *secunda ...*
221 . Here *prima in duas in prima ostendit quod anima est perfectio in secunda cuius sit perfectio* is repeated.
222 . W3 omits *secunda ibi* and places the lemma earlier after *in secunda*.
223 . W3 clearly reads *uno*.
224 . W3 reads *quia* P143 omits.
225 . W3 omits lemma and *Tunc sequitur*, and reads *autem* after *illa*.
226. W3 omits *et*.
227 . W3 reads *est*.
228 . P143 omits *corporis*, but found in W3.
229 . W3 omits *secunda ibi* and places the lemma earlier after *in secunda*.
230. W3 reads *illa*.
231 . W3 omits *et ista secunda in duas in prima ostendit quod anima est perfectio corporis naturalis. In secunda cuius corporis naturalis. secunda ibi modi vero corporis*.
232 . W3 reads *illa* for *ista secunda*.
233 . W3 omits *secunda ibi* and places the lemma earlier after *in secunda*.
234 . W3 reads *illa* for *secunda ista*.
235 . W3 omits *et cetera*.
236 . W3 reads *et quia iam exposuimus ex compositis diffinitionibus anime* and the lemma is not underlined.
237 . W3 omits *secunda ibi* and places the lemma earlier after *in secunda*.
238 . W3 reads *illa* for *ista secunda*.
239 . W3 omits *secunda ibi* and places the lemma earlier after *in secunda*.
240 . W3 omits *secunda ibi* and places the lemma earlier after *in secunda*. However it has a different lemma and reads *partes anime*.
241 . W3 omits *Tunc sequitur*.
242 . W3 omits the lemma *opus autem*.
243 . W3 omits *ibi* and places the lemma earlier after *in secunda*.
244 . W3 omits *ibi* and places the lemma earlier after *in tertia*.
245 . Found in W3 but not P143.
246 . W3 reads *sed sit*, *sed* could be a misreading for *licet* or vice versa; the abbreviations are similar as are the 'l' and 's'.
247 . From W3.
248 . W3 reads *interior* but after *scilicet*.
249 . W3 reads *esterio*.
250. W3 omits *de*.
251 . A further page appears in P143 (f.123v) but is has been badly spoiled and is mostly illegible. Although it cannot be read satisfactorily, with the aid of the W3 I have made some attempt at a transcription. I have only transcribed words that I could read or partially read on their own or with the use of W3.

252 . Lemma found in P143.
253 . P143 reads ... *determinatum est de anima et spiritum* ... ... *determinatur de differentia de spiritus et anime.*
254 . P143 reads ... ... *intentionem secundo prosequitur.*
255 . P143 has *secunda ibi* before the lemma.
256 . P143 reads ... *secunda.* This is likely to be *ista secunda* as seen earlier in the text.
257 . P143 seems to omit the lemma.
258 . P143 reads *secunda.*
259 . P143 places lemma at end of the sentence before *prima in duas.*
260 . P143 places lemma at end after *secunda ibi*, this is usual.
261 . *Et similiter* should be underlined, but is not in this manuscript. P143 omits *secunda ibi. si mulieribus. tertia ibi. et similiter.*
262 . The word 'determine' has been preserved in this translation despite the occasional awkwardness of the English because it represents the scholastic mode of settling a desputed question.
263 . i.e. earlier in the *Corpus Vetustius.*
264 . W3 reads differently (see Latin), translation: Here begins the script on the book about the soul and spirit. Above he has determined the soul itself and the operations of the soul.
265 . W3 omits 'The tractate begins here..'.
266 . Marginal gloss. *cum sua causa* - 'with its reason.'
267 . W3 omits the verb. It is usual for W3 to do this, as this is of little importance for the content of the text such an omission will not be noted again.
268 . This is a logical term *genus*, and its subdivisions are *species.*
249. The 'difference', that is, by which species would be established.
270 . Aristotle, *De sompno et vigilia*, trans. J. I. Beare in *The works of Aristotle translated into English*, ed. by W. D. Ross, 12 vols (Oxford: Clarendon Press, 1907-52), III, 458a.
271 . This seems to make the most of an awkward sentence.
272 . Aristotle, *De sompno et vigilia* in *The works of Aristotle...*, III, 456b.
273 . In Costa's text it is clear that the sign is that the spirit leaves the body at death.
274 . Probably what Costa intended was that our understanding of the spatial formation of the brain is necessary to our understanding of the origin of the animal spirit.
275 . The awkward wording and the lack of *due rationes* in the following text suggests textual corruption.
276 . The Latin is unclear but obviously the intellect needs continous memory to function.
277 . Probably some word like *quomodo* has been omitted.
278 . *Historia Animalium,* Becker ed., 515a.
279 . *The Canon,* Book 3 Fen 3 Tract 1 Chapter 1.
280 . *Historia Animalium*, Becker ed., 514a.
281 . I can find no sense for *solum cum sensu tactus.* This phrase also appears in Durham C.III.17 gloss n.382 (see Chapter 5).
282 . W3 reads *Aristoteles.*
283 . I prefer to stick close to the Latin although this makes the English awkward.
284 . W3 omits 'is divided into two parts, in the first part he posits two definitions of the soul and explains the reasons..'.
265. The Latin is clear, although it is counter to the whole text.
266. The *sensis communis* was the sense common to all the senses.
267. It is a sense without its own sense organs.
288 . W3 omits the first two lines of this paragraph.
289 . The translation ignores an apparently unnecessary *primam* at this point.

290 . P143 omits the text in square brackets, so I have inserted it from W3.
291 . Reading *uno* for *no* perhaps following a manuscript correction, deletion dots underneath *pl.* This is clearly *uno* in W3.
292 . See the English translation of Aristotle's *De anima* in Smith, J. A., '*De anima*', in *The works of Aristotle...*, III, 412a.
293 . Illegible.
294 . The Latin is illegible here.
295 . This lemma should be underlined.
296 . P143 f.121vb.
297 . P143 f.122ra.
298 . P143 f.121rb.
299 . Line 4 of Adam's commentary.
280. Minnis, A. J. Medieval theory of authorship: Scholastic literary attitudes in the later middle ages. (Aldershot: Scolar Press, 1988), p.28.
281. Minnis, *Medieval theory...*, p.28.
282. Minnis, *Medieval theory...*, p.23.
283. Minnis, *Medieval theory...*, pp.23-4.
304 . P143 f.121rb.
305 . Pelster, 196-224 (p.212).
306 . P143 f.121rb.
307 . Callus, 'Introduction of Aristotelian...', 229-281 (p.266).
308 . "Adam's clarity and monotonously systematic formulae made them useful and useable " in Thomson, 'A further note...', 23-32 (p.32).
309 . Thomson, 'A note on the works...', 55-87 (p.55).
310 . See Thomson, 'A note on the works...', 55-87.
311 . It is not possible to say if Adam read Plato directly.
312 . Note that solving contradictions is one of the main purpose of the commentary
313 . Lawn, p.13.
314 . For a full description of *disputatae* see Lawn. Note also Cobban, p.168. Cobban says that there are two types of ordinary disputation, *de problemate* and *de quaestione*, the latter relating to the natural knowledge.
315 . Lawn, p.24.
316 . See Chapter 1.
317 . See Chapter 1.
318 . We have already discussed glosses as written up lectures notes, for example Henry of Renham's glosses in Royal 12 G II.
319 . Thomson, 'A note on the works...', 55-87 (p.83).
320 . See Noone, 308-316 (pp.313-4).
321 . R. J. Long, 'The anonymous Peterhouse master and the natural philosophy of plants', *Traditio*, 46 (1991), 313-336 (p.323).
322 . Noone, 308-316 (p.314).

Chapter Four: The glosses containing fragments of Adam's commentary on *De differentia spiritus et anime*

We have already discussed the *Corpus vetustius* and its relation to university teaching. If we wish to discover Adam's influence on teaching we must examine the evidence from the glosses of the *Corpus vetustius*. Noone points to glosses of arts masters as evidence of Adam's influence.

> Hence scholars should perhaps spend less time looking for quotations of Buckfield's work in commentaries by other authors on the Aristotelian treatises and more time examining manuscripts containing arts masters' glosses, where, if the glosses of Y [New Haven, Yale University, Medical-Historical Library 12] are any indication, Buckfield's commentaries had their primary influence.[1]

This chapter will give evidence for the use of Adam's commentary on the *De differentia* in the glosses of the *Corpus vetustius* manuscripts. I have included evidence for the use of Adam's commentaries on other works in the *Corpus vetustius*, principally *De plantis*, although no systematic analysis has been attempted.

The method adopted was to make a systematic transcription of the glosses for the *De differentia*. Adam's commentary was then searched for verbal similarities to indicate the origin of some of these glosses. This proved to be fruitful and I discovered certain glosses were passages from Adam's commentaries. This will help us to establish the origins of the 'Oxford gloss' in the *Corpus vetustius* (see Chapter 5). As Burnett observes:

> We have, therefore, to look further back in history for the compilation of the *Corpus vetustius*. And here, the other source of glosses and commentaries in English thirteenth century manuscripts of the Corpus may be helpful: Adam of Buckfield's commentaries.[2]

There is therefore good evidence that Adam was used in teaching these texts at Oxford. There is a very large number of manuscripts in Europe, possibly as many as a hundred, that may contain glosses from Adam's commentaries. It is outside the scope of this thesis to make a full systematic examination of these.

The evidence from these manuscripts comes in two distinct forms. Firstly short passages from the commentaries of Adam are included in the system of interlinear and marginal glosses that are the product of lectures. Secondly much larger passages from the commentaries (in some cases almost the whole commentary) are written out in extended form. The purposes of these glosses are discussed in the next chapter.

(i) Short passages from Adam's commentaries on De differentia and De plantis

In each case the glosses discovered in the *Corpus vetustius* are presented first and then followed by the excerpt from Adam's commentary. Abbreviations defining the location of the glosses on the page of the manuscript are explained in Chapter 5, page 206.

a. *De differentia spiritus et anime*:

Durham, DCL, C. III. 17, f.381v (gloss 63 in Chapter 5):

Nota quod in corpore humano sunt duo genera venarum scilicet vene non pulsatiles in quibus defertur sanguis per totum corpus et iste vocantur communiter vene et vene pulsatiles in quibus defertur spiritus vitalis per totum corpus et iste vocantur communiter arterie, et in hoc libro vocantur vene pulsus.

Adam's commentary (see Chapter 3 page 131):

Nota etiam quod in corpore humano sunt duo genera venarum scilicet vene non pulsatiles in quibus defertur sanguis per totum corpus, et iste communiter vene vocantur; et sunt vene pulsatiles in quibus defertur spiritus vitalis per totum corpus, et iste communiter vene vocantur arterie, et in hoc libro vene vocantur pulsus.

Here we see an example of the gloss in **Durham, DCL, C. III. 17** giving a more accurate text than the Peterhouse manuscript. **Camb., Peterhouse 143** unnecessarily repeats *et sunt vene pulsatiles in quibus defertur spiritus vitalis per totum corpus.* The glosses found in the *Corpus vetustius* manuscripts that are fragments of Adam's commentary are an important consideration in any attempt to establish an edition of the commentary.

Durham, DCL, C. III. 17, f.383r (gloss 363 in Chapter 5):

<u>*ventriculo cerebri anterioris procedunt*</u> *.> Nota quod duo sunt genera nervorum sunt enim quidam nervi solidi qui sunt solidissima pars corporis inter os et illi sunt ad*

sustamentum corporis non ministrantes sensum et motum quia nichil sentiunt ut dicitur in libro de animalibus, alii sunt nervi concavi in quibus deferuntur spiritus animales a cerebro ad singula <mem>bra et huius nervus ponitur a commentatore[3] *instrumentum tactus. Nec contradicit huic quod dicitur in de <animali>bus quod in cerebro non est nerviis quia ibi loquitur de nervo proprie dicto qui solidus est et non concavus.*

Adam's commentary (See Chapter 3 page 136):

Nota circa partem primam quod duo sunt genera nervorum: sunt enim quidam nervi solidi qui solidissima pars animalis praeter os: et illi sunt ad sustentationem cordis folis non ministrantis sensum et motum quia senciunt sicut dicit Aristoteles in libro de animalibus. Sicut enim oportet alii sunt nervi et continui in quibus deferuntur spiritus animales a cerebro ad singula membra ministrantes sensum et motum; et huiusmodi nervus potentia a commentatore instrumentum tactus et gustus et etiam visus, quia sicut dicit Avicenna visus fundatur in humore cristalino et nervo concavo. Unde et subtiliter cogitat de huius nervis subtilior est alio nervo grosior tamen est et solidior vena vel arteria nec contradicit libro quod dicit Aristoteles in libro de animalibus quod in cerebro non est nervus, neque vena, quia ibi loquitur de vena et nervo proprie dicto qui solidus est et non concavus.

The gloss is shorter and has slight variations from Adam's commentary. The slight variations, such as the omission of a word, would support the idea that these glosses are written from notes taken in a lecture. The omission of the phrase *circa partem primam* in the gloss is an example of variation. The phrase is not essential

information, but merely points to which part of Costa's text it is referring; this is not necessary in **Durham, DCL, C. III. 17** where the gloss is clearly connected to the place in Costa's text to which it refers. Another phrase omitted in the gloss, *Sicut enim ostendit*, is again not essential to the purpose of the gloss; just as *quia sicut dicit Avicenna* is omitted later. Twice Aristotle's name is omitted in the gloss but *De animalibus* is not. This text was believed to be by Aristotle, and again it is not essential to mention him by name. The second line of the gloss replaces *animalis* with *corporis*, but this does not change the general sense of the sentence. This word replacement is common and seems to be an indication of the aural origin of these glosses. In this sentence *praeter* is replaced by *inter*. Again such a mistake may be expected; later *concavi* is found as *continui*. Words are omitted perhaps purely by accident, such as *folis* and *ministrantes sensum et motum*. Such glosses follow the authority as best they can, and such mistakes that do appear would seem to be inevitable in the process of taking notes. In a lecture it would seem easiest to follow the teaching quite closely and so write down what is heard as much as possible. This I feel would explain the variation, which it must be emphasised is slight, from Adam's text.

Durham, DCL, C. III. 17 f.383v (gloss 382 in Chapter 5):

Et nota quod exta vocat illas partes corporis in quibus est alia digestio solum cum sensu tactus. Nota quod ulula est pellicula que aliquando laxatur ante introitum gutturis impediens gustum atque sermonem.

Adam's commentary (See Chapter 3 page 136):

Nota etiam quod exta vocat omnes partes corporis in quibus est alia digestio solum cum sensu tactus. Ufula est quaedam pellicula que aliquando laxatur ante introitum gutturis impediens gustum atque sermonem.

The interesting point about this gloss is that it enables us to check the reading in Adam's commentary in Chapter 3. Before finding the gloss the text appeared corrupt and no adequate translation could be made of it; however the gloss suggests either that the reading is correct or that both the origins of the gloss and Adam's commentary in Chapter 3 are corrupt.

Durham, DCL, C. III. 17 f.385r (gloss 601 in Chapter 5):

et vocat fortitudinem formam completivam quia dat complementum rei et est principium sue virtutis et fortitudinis.

Adam's commentary (See Chapter 3 page 139):

Et nota ibi quod formam completivam rei vocat fortitudinem quia dat complementum rei et est principium rei sue virtutis et fortitudinis.

Nürnberg, ML,Cent V 59 f.215r (l outer):

Et usus sum Ista pars dividitur in duas, primo tangit modum procedendi. Secundo tangit causam cum dicit quia te novi et cetera. Ista dividitur in duas secundum duas causas

quas ipso ..it ibi Et credo et cetera.

Adam's commentary (See Chapter 3 page130):

Tunc sequitur illa pars et usus sum in qua dat modum procedendi; et dividitur in duas quia primo dat modum procedendi in generali; secundo in speciali, secunda ibi nunc autem incipiens dicam<;> adhuc prima in duas quia primo dat modum procedendi in generali; secundo subdit duplicem eius causam, secunda ibi quia novi te; et ibi in duas est secundum duas causas, secunda ibi et credo.

This gloss is a shortened version of the passage from Adam's commentary, and omits material including the *lemma nunc autem incipiens dicam*. Again this suggests the orally transmitted origin of these glosses. The style is most certainly Adam's and so are the *lemmata*.

Nürnberg, ML, Cent V. 59 f.219r (l marg):

hic ostendit anima est perfectio corporis naturalis.

This appears in the margin next to *Modi autem corporum*, which comprises the lemma in the Wellcome manuscript.

Adam's commentary (See Chapter 3 page140):

in prima ostendit quod anima est perfectio corporis naturalis.

BN, lat. 12953 f.276v (page bottom):

... sic diffinitur pulsus est motus cordis et arteriorum que secundum diastolem fit idest secundum elevacionem ad infrigidacionem innati caloris et egescionem fumosarum superfluitatum.

Adam's commentary (See Chapter 3 page 132).

proprie dicitur pulsus motor cordis et arteriarum[4] *ramificatarum per totum corpus quod est secundum diastole idest secundum elevationem ad refrigerationem <in>nati caloris et egestionem fumosarum superfluitatum.*

This gloss has omissions and variations. The word *dicitur* is replaced by *diffinitur, motor* by *motus* and *refrigerationem* by *infrigidacionem.* The gloss omits *per totum corpus.* Again this is attributable to the aural origin of the gloss.

Real Bib. de El Escorial, f.II. 4 f.226v (r inner):

ululam est quedam pellicula que quandoque laxatur ante introitum gutturis impediens gustum atque sermonem, vel uluam, que dicitur esse prima pars cerebri.

Adam.s commentary (See Chapter 3 page 136):

Ufula est quedam pellicula que aliquando laxatur ante introitum gutturis impediens gustum atque sermonem.

Again the gloss varies slightly from Adam's commentary; *ufula* appears as *ulula* and is a lemma; *aliquando* appears as *quandoque.*

In the following manuscripts no evidence of Adam was found for glosses on *De differentia*. This is for a number of reasons.

BL, Royal, 12 G II has some glosses for this text but no fragments of Adam were found. However there is a note on f.116r *nota quod iste divisiones facte sunt, secundum bocfeld.*[5] This may be evidence of the use of Adam's commentary for teaching. **BL, Royal, 12 G V** has very few glosses and no fragments of Adam were found. **BL, Harleian, 3487**, although well glossed, contained no passages from Adam's commentary. **BAV, lat. 2071** is glossed, but no passages from Adam were found. **BAV, Urb. lat. 206** has not been glossed in the case of *De differentia*. **BN, lat. fonds 6322** has no glosses in *De differentia*. **Madrid, Bib. nacional, 97 244** is substantially glossed but no passages from Adam were found.

***b. De plantis*:**

During the research for this thesis I examined Adam's commentary on the *De plantis*. However the limitations on space in a thesis did not allow an examination of this commentary as well as the commentary on the *De differentia*. However it seemed valuable to include other material found in copies of the *Corpus vetustius* in addition to

the evidence from Adam's commentary on *De differentia*. There is a substantial amount of this material that is valuable evidence for the influence of Adam and Oxford on thirteenth-century natural philosophy. This material will point the reader to the vast amount of research potential in this area. It is also further evidence of how close (or otherwise) glosses are when excerpted from a commentary.

Adam commentary is taken from Wellcome Historical Medical Library 3.

BL, Royal 12 G III f.195va (l inner):

scilicet coniunctas, propter hoc enim non indiget planta re extrinseca ad generandum.

Adam's commentary W3 f.134vb:

planta non indiget re extrinseca, ad generandum animal.

These refer to the same point of argument in the *De plantis* text.

Bl, Royal 12 G III f.195vb (r inner):

idest terrestri et aqueo et ita talis cibatio est propter eius inperfectionem animal autem eget cibo nobili interpolato prope eius perfectionem.

Adam's commentary W3 f.135ra:

aqueo et terrestri, et hoc propter sui imperfectionem, animal non indiget nisi interpolatio cibo nob.. et hoc est propter perfectionem et hoc est et si dixerit.

Both the gloss and excerpt refer to same point of argument in the text of *De plantis*. The gloss appears to be a fuller version of the commentary. Again a gloss such as this would be valuable in any attempt to establish an edition of Adam's commentary.

BL, Royal 12 G III f.196va (l inner);

scilicet in specie et numero a principio sue necessitatis,[6] *ut palma secundum ysidorum, non enim addit unicum ramum nec unicum surculum a principio sue formationis et supra quedam sunt que non habent partes terminatas.*

Adam's commentary W3 f.135va:

Dicamus ergo secunda diversitas quod quedam partes habent terminatas partes secundum, et speciem a principio sue nati[vitatis]*, ut palma sicut dicit ysodorus, et alii philosophi multi hoc enim non addit, unicum ramum, nec unicum surculum a principio sue formationis sicut nec arista tritici, quedam non habent partes sic terminatas*

Again we see shortening by the omission of unessential material such as *et alii philosophii*. Some words change, *sicut dicit ysodorus* becomes *secundum ysidorum*. We come to expect this from such glosses with their origins in the heard lecture.

BL, Royal 12 G III f.197rb (r outer):

sic omnis planta habens ex sua radice unum stipitem et multos ramos in ipso est arbor.

Adam's commentary W3 f..135vb:

est autem arbor que habet unam stipitem ex sua radice et multos ramos

BL, Royal 12 G III f.198v (r outer):

et hoc propter vehementiam caloris et siccitatis consumantium humidum naturale ipsius plante.

Adam's commentary W3 f.137ra :

et hoc propter vehemenciam fervoris consumentis humidum naturale ipsius plante

Here we see the characteristic use of a word of a similar meaning, *caloris* for *fervoris*, which happens when a student remembers the meaning of what he *heard* not read.

BL, Royal 12 G III f.199v (l outer):

quod non habemus complete hunc secundum librum quia non prosequitur in hoc secundo omnia que hic promittit.

Adam's commentary W3 f.137rb:

Sed ad sciendum, secundo prosequitur et quia non prosequitur totam intentionem nec omnia que promittit; satis patet quod non habemus hunc librum complete.

The gloss and the excerpt are similar enough to come from the same source. However the different word may again suggest a confused transmission of the material.

BL, Royal 12 G II f.207r (l marg):

vita sine sensum moros tenet ymaginem sensus quod vite prestat illustrationem. Item quia per sensum accipitur in anima species sensilibilis vel intelligilibilis vel que animam illustrat dicitur tamen quod quod hec illustratio consistit penes rerum apprehensionem et apprehensarum discretionem et discretarum fugam vel electionem

Adam's commentary W3 f. 133va:

Secunda racio est illustratio vite est que proforte consistit penes rerum comprehensionem et comprehensarum discretionem et discretarum fugam vel electionem

Again we see the replacement of *apprehensionem et apprehensarum* for

comprehensionem et comprehensarum. Not only do these words have similar meanings but importantly they *sound* similar.

BL, Royal 12 G II f.208v (r outer):

habet in se scilicet motui nutritionis augmentationis et generationis, que in sunt a parte vegetative et ita planta solum habet vegetativam

Adam's commentary W3 f.133vb:

sed habet motum generationis nutritionis et augmenti quia habet tantum virtutem et naturam ad istum motum apropriatam et hoc est vis vegetativa et hoc est.

These passages do not appear to be very close, certainly not as close as glosses we have seen. However they seem to have the same source.

BL, Royal 12 G II f. 212r (r marg):

et hoc a principio nativitatis sue ut palma secundum Ysidorum non enim addit unicum ramum nec surculum a principio sue formationis

Adam's commentary W3 f.135va:

et speciem a principio sue nativitatis, ut palma sicut dicit ysodorus, et alii philosophi

multi hoc enim non addit, unicum ramumm, nec unicum surculum a principio sue formationis

Again the term *alii philosophii* has been omitted. The glosses appear to be paraphrases of the commentary in some cases.

BN, lat. 12953 f.320r (l outer):

... scilicet in specie et numero sue nativitatis ut palma secundum ysidorum addit unicum ramum et unicum surculum a principio formationis, ut arista

Adam's commentary W3 f.135va

et speciem a principio sue nativitatis, ut palma sicut dicit ysodorus. et alii philosophi multi hoc enim non addit, unicum ramum, nec unicum surculum a principio sue formationis sicut nec arista tritici.

BN, lat. 12953 f.320r (l inner):

idest non fluentes humore per cuius humoris diversitatem nascantur dicte diversitates in partibus plante

Adam's commentary W3 f.135va:

plante habent partes humore sub gummi fluendes, per cuius humoris diversitatem, nascuntur quedam diversitates in partibus plantarum

Here we see a sort of paraphrase by the omission of less essential material, that is, *sub gummi*.

In the following manuscripts no evidence of Adam was found for glosses on *De plantis*. This is for a number of reasons.

Paris, Bibliothèque nationale, 16142. is very sparsely glossed and contains no passages from Adam's commentary. **Nürnberg, ML, Cent 5, 59** is sparsely glossed with no glosses from Adam's commentary. **BAV, Urb. lat. 206** has no glosses for this book at all. Yet it contains in marginal form some of Adam's commentaries on *De celo et mundo*, *De generatione*, *Meteora*, *De anima* and *De memoria*. The incipits and explicits of these are given below as further evidence of the extent of Adam's influence. **BAV, lat. 2071**: no passages from Adam are found in this sparsely glossed manuscript. **BN, lat. 6322** is totally devoid of any glosses for the *De plantis*.

(ii) Long passages of Adam's commentaries found in the Corpus vetustius

Some manuscripts contain long passages and sometimes whole commentaries by Adam of Buckfield. These are usually written in the outer margins or at the top or bottom of the leaf. They can appear with or without the usual interlinear or marginal glossing. They have a different origin from that of the glosses which represent classroom teaching (see figure H). It is highly unlikely that these long sections of commentary represent lecture notes. It seems likely that they are not the result of orally transmitted

material, but are rather produced by the copying of some exemplar. Firstly the commentaries represent a large amount of material, and far more writing was done than for the glosses and indeed more than the central text itself. Secondly the short glosses are discontinuous, resulting from the lecturer taking each point of the text in sequence. By contrast the long passages are continuous and follow the rules and therefore sequence of commentary rather than the sequence of the text. The long passages, although they refer to the central text by means of internal *lemmata*, are not physically dependent on it. The short glosses, however, are visibly connected to the central text by textual indicators (see Chapter 5 for this type of mechanism).

A diligent student, probably on the advice of his master, considered this commentary important enough to copy it, painstakingly and at great length, into the codex. Adam may have been 'recommended reading'. It seems that a student may have been referred to this or that commentary, and depending on its availability he may have written it up in his copy of the *Corpus vetustius*.

Long passages of Adam's commentaries appearing in the *Corpus vetustius* are thoroughly convincing evidence of his importance for the teaching and development of European natural philosophy and the respect that his contemporaries and later generations had for him.

Below are given the incipits and explicits of the long passages from Adam's commentaries in two continental manuscripts. Firstly these will show the large amount of material by Adam included in these manuscripts. Secondly this will aid scholars in the identification of Adam's work in other manuscripts. The incipits and explicits are given at some length, because they do not always represent the beginning or close of the whole commentary and may therefore occur at various points in the text.

A good example of a long passage is in the manuscript **BN, lat.12953.** A large section of Adam's commentary on *De plantis* has been copied into the wide margin at the bottom of the page alongside the central text of *De plantis*.

Adam's commentary on *De plantis*.

Incipit f.315r:

Tria ut ait Empedocles. quem in principio libri methe^{ois} [sic] promittit aristoteles de accus non de mineralibus et etiam de aliis que generantur super terram ut de animalibus et plantis et etiam de suis partibus; et hoc ... sermone universali quam particulari, tamen in quarto liber metheoris actum sit de minerablibus sermone universali et particulari de animalibus autem et plantis non est actum nisi sermo universali ideo in hoc libro quem p..ibus. Habemus qui ibi incipit vita in animalibus et cetera, item in libro de animalibus solvit aristoteles quod in principio libri metheoris promiserat agens de plantis et animalibus et de suis partibus sermone particulari in hoc autem libro de plantis et suis partibus, in libro de animalibus et de suis partibus, patet ergo de quo est intentio in hoc libro et quod inmediate sequitur librum metheororum, et antecedit librum de animalibus, ante cum quam principale intentum agredi quem exponamus quemdam prologum quem premisit intentionem istius libris inagens alvredus de sareshia, qui istum librum transtulit de arabico in latinum qui logus ibi incipit tria ut ait empedocles et cetera.

Explicit f.317r:

enim appetitus qui est in plantis maior est appetitu sive inclinacione que est in gravi et levi est etiam minor illo appetitu qui est in sensibus qui scilicet appetitus in sensius est

vere desiderium et sic solvitur secundum perscrutenitur autem.

Like the manuscript above, an Italian manuscript, **BAV, lat. 206,** of the *Corpus vetustius* includes commentaries found as continuous passages surrounding the text which is being commented upon. This is an important manuscript as it contains a very large amount of Adam's work.

Adam's commentary on *De celo et mundo.*

Incipit f.104r:

Nota libro precedente qui intitulatur de phisico auditu[i][7] *egit*[8] *[sic] aristoteles de corpore mobili similiter. In hoc autem libro qui intitulatur de celo et mundo agit de corpore mobili contracto ad corpus mundi, et sic patet de quo agitur in libro isto, et patet continuacio huius libris ad precedentem, dividitur autem liber iste in duas partes in prohemium et tractatum.*

Explicit f.182v:

tunc corpus inpellens subiungitur in corpus inpulsum sic econtrario natat super ipsum et non subiungi omnino et hec [sic] est et ex eis que oportet et cetera, epilogat et hoc est iam ergo determinavimus et cetera.

Adam's commentary on *De generatione et corruptione.*

Incipit f.184r:

<D>e generacione autem et corrupcione et cetera. Cum sit determinatum in libro phisicorum de corpore mobili simpliciter sive in communi et etiam in libro celi et

mundi, determinatum sit de corpore mobili contracto ad generabile et corruptibile sive de mobili contracto ad mobile localiter in isto libro intendit aristoteles determinare de corpore generabili et corruptibili; et dividitur iste liber in duas partes. In prima determinat de corpore generabili et corruptibili simpliciter non contracto.

Explicit f.209r:

Intendit hic duas dubitaciones quarum prima est propter quod in generacione quorumdam est reiteracio, ab eodem in idem ut elementis, in quibusdam autem non, ut in generacione animalium et respondet cum dicit <u>*in rectum utique*</u>*, quod est quia generacio animalium est secundum rectum; secundam dubitacionem ponit ibi* <u>*prinicipium autem et cetera*</u>*, utrum omnia que reiterantur ab eodem in idem reiterantur eodem modo autem non respondet cum dicit* <u>*autem non*</u> *quod non sed quedam in idem secundum numerum ut quorum substancia mota est incorruptibilis quedam in idem secundum speciem ut quorum substancia est corruptibili; expliciunt notule super librum de generacione et corruptione.*

Adam's commentary on *the Metheora.*

Incipit f.210r:

<u>Postquam et cetera</u> *Intencio in hoc libro est de corpore mobili. quarto ad corpus mobile et generabile et corruptibile compositum generatum ex vapore ascendente ex terra et aqua et ad compositum generatum in ventre terre, cum enim subiectum tocius naturalis philosophie sit corpus mobile, oportet in specialibus scientiis istud subiectum esse secundum contraccionem respectu subiecti communis vel potest dici quod intencio in hoc libro cum de scienciis impressionibus in alto vel in partibus inferioribus et hoc*

modo intitulat istum librum alvredus, dicit enim alvredus quod iste liber est aristotelis philosophi vel sapientissimi.

Explicit f.256v:

ponit minorem istud tamen non concedunt, ymo dicunt metallum omne debere fieri aurum et non differe ab auro nisi sicut perfectum ab imperfecto; unde secundum eos qui sciret [sic] ab ...[9] *metallis abstergere in mundicias sciret ex omnibus facere aurum, et dicunt istam abstersionem per artificium esse possibilem; et sic terminat iste tractatus. Explicunt notule magistri adam metheororum.*

This is the same commentary as in **Wellcome Medical Historical Library, 3** f.107r which as far as I know has not been attributed to Adam of Buckfield so far although the codex contains other commentaries by him.

Adam's commentary on *De anima.*

Incipit f.258r:

<H>onorum honorabilium In hoc libro intentio est de anima circa quam in principio sciendum quod anima quamvis non sit contenta sub corpore mobili, quod est subiectum in naturalis philosophia tanquam pars eius subiectiva ideo posset aliquis videre, quod consideratio de anima non pertineret ad naturalem philosophiam.

Explicit f. 298v:

et uno modo extendit sensum dicitur enim quod in eius compositione licet dominetur

terra secundum substanciam et materiam id equatur tamen cum aliis elementis in forma et virtute sicut est in ... et universaliter in animalibus et ad illam ad equationem consequitur sensus, alio modo dicitur terreum in cuius compositione non solum dominatur terra secundum substanciam et materiam sed etiam secundum formam et virtutem cuius sunt plante et similia et tale terreum excludit sensum.

Adam's commentary on *De memoria et reminiscentia.*

Incipit f.299r:

Reliquorum autem primum considerandum et cetera. quibusdam naturalis philosophie doctoribus placet continuare librum illum libro de sensu et sensato et tunc continuetur sic; cum in libro de sensu et sensato agatur de sensibus ad quorum comprehensionem consequitur memoria et reminiscentia in hoc libro intendit determinare de memoria et reminiscentia que sunt passiones consequentes ad alias virtutes apprehensivas quibusdam placet ut continuetur libro de anima.

Explicit f.304r:

Amplius autem pueri compressi et licet pueri sint mobiles inordinatis motibus in principio tamen cum ad etatem perfectam pervenerint fuerint bene reminiscentes propter humidi compressionem et proportionem cum siccitate et cum dicit, epilogat

The glosses in this manuscript are in an English cursive hand, but the marginal commentaries are written in French or Italian hands. This manuscript may have been glossed in England, and afterwards Adam's commentary was added in a different national

hand, either in England or abroad. The international nature of this codex illustrates the importance of Adam of Buckfield's and Oxford's natural philosophy. The date of this manuscript is given by Lacombe as before 1253 at a time before natural philosophy was fully statutory in the Parisian arts curriculum. However we do not know the date of the addition of the long passages from Adam's commentaries.

Since Oxford was influential in natural philosophy in the second half of the thirteenth century, the popularity of Oxford commentators in the *Corpus vetustius* is not surprising. In the cases where Adam's commentaries do appear, were they the only ones available? This seems unlikely. Maybe Adam proved particularly useful for his unpretentious and thorough analysis of the text. Indeed the fact that many of his commentaries survive in marginal form in codices of the *Corpus vetustius* backs up the claim Noone makes about the usefulness of Adam of Buckfield's commentaries for understanding of obscure Aristotelian works.[10]

In this chapter we have seen substantial manuscript evidence that Adam's commentaries appear in copies of the *Corpus vetustius*. These manuscripts are products of university teaching. Adam therefore was clearly important in this teaching. For this thesis it has been possible to examine only a few copies of the *Corpus vetustius*. Further research into the *Corpus vetustius* will surely reveal much more evidence for the use of Adam of Buckfield in the university teaching of natural philosophy in the thirteenth and early fourteenth century.

We have established Adam of Buckfield as commentator with an international audience. In the next chapter we will see that the teaching of natural philosophy at Oxford, of which Adam was a part, also had a European setting.

Other authorities used in the glosses of the Corpus vetustius manuscripts

Above is shown some evidence for the use of Adam of Buckfield's commentaries in the writing of glosses. To put Adam in perspective it will be useful to show which other authors appear in the glosses of the manuscripts examined in this chapter. It is not the purpose of this section to identify all the glosses. Some of the longer glosses (which we more readily expect to be quotations from authorities) are named; such phrases appear in the glosses as *secundum alvredum*, indicating the origin of the gloss. Some of the glosses may represent passages taken directly from the named authority. Other references may be indirect, that is, quotations from an unnamed source that happens to quote another source (for example Adam may be quoted by someone else whilst he is quoting Aristotle). Most of the longer glosses are at first unidentifiable, with no name attached to them. Their identity can only be discovered by the type of research done on Adam of Buckfield in this thesis. However a number of sources are named. The following discussion concerns *De differentia spiritus et anime*.

Sigla:

Real Bib. de El Escorial, f.II. 4 sigl. *A*

BN, lat. 12953 sigl *B*

Madrid, Bib. nacional 97 244 sigl. *C*

Durham, DCL, C. III. 17 sigl. *D*

BL, Harleian 3487 sigl. *E*

Nürnberg, ML,Cent V 59 sigl. *F*

BL, Royal 12 G II sigl. *G*

BL, Royal 12 G V sigl. *H*

BAV, lat. 2071 sigl. *I*

Aristotle is the commonest identifiable reference point in the manuscripts examined. His *Physics* are mentioned in *A*, thrice in *B*, twice in *C* and in *D*. *De celo et mundo* is mentioned thrice in *B*, twice in *C*, thrice in *D*, in *H*, and twice in *I*. *De generatione* is mentioned in *B*. *Meteora* is mentioned twice in *B*, in *H*, and twice in *I*. *De anima* is mentioned in *A*, four times in *B*, in *C*, twice in *D*, in *F*, in *G* and five times in *I*. *De sompno et vigilia* occurs in *A*, twice in *B*, twice in *C*, in *D*, twice in *F* and twice in *G*. *De memoria et reminiscentia* appears in *B*, twice in *C* and in *F*. *De sensu et sensato* is mentioned in *B*, *C* and *D*. Aristotle's *Ethics* are mentioned in *B*, *D* and *H*. Aristotle is mentioned by name, with no associated work, thrice in *A*, in *B*, in *C*, thrice in *D*, in *F*, in *G* and in *I*. *De animalibus*, an Arabic paraphrase of Aristotle's *partibus animalium, historia animalium and De generatione animalium*, is mentioned with Aristotle's name four times in *B*, thrice in *C*, four times in *D*, twice in *F*, twice in *G* and in *I*. Aristotle's name also appears with *De plantis* or *De vegetabilibus*. It would seem then that at the time of the composition of the glosses in these manuscripts this text was still attributed to Aristotle. It authenticity was doubted by the schoolmen from around c.1275.[11] *De vegetabilibus* is mentioned in *D* and *H*.

Averroes is another author who is frequently mentioned in the glosses of the manuscripts examined. Averroes' commentary on the *De anima* (*super terciam de anima*) is mentioned in *A*, *B*, *C*, *D*, *F* and *G*. Averroes is also mentioned by name alone in the same manuscripts (*A*, *B*, *C*, *D*, *F* and *G*).

An important English source for the glosses is Alfred of Shareshill. He is referred by name only once in *A*, thrice in *B*, *C*, *D*, *F*, twice in *G* and in *H*. Alfred s name also

appears with reference to his work *De motu cordis*. References to this work are found in *A*, thrice in *B*, *F*, and *G*. Alfred's name appears mostly as *alvredus* but sometimes as *alfredus*.

A very interesting phrase, *secundum medicos*, is often found in the glosses. This would appear to mean that the gloss in which the phrase is found follows the theories of medical men. Who these *medici* are is not known. We see here reference to the two separate but related traditions of medicine and philosophy. The phrase appears five times in *A*, six times in *B*, twice in *C*, five times in *D*, four times in *F*, five times in *G*, twice in *H* and once in *I*.

Augustine also is mentioned as a reference point. His book *De spiritu et anima* appears in *A*, *B*, twice in *C*, *D*, *F* and *H*. In manuscript *D* he is also mentioned twice by name alone.

Boethius (*Boetius*) is mentioned once in the glosses of manuscript *F*.

Manuscript *G* has an interesting gloss on f.367r:

manet enim post separacionem et notandum quod hec differencia specialiter est inter spiritum et animam racionalem aut oportet ponere quod similis cum racionali vel intellectiva separetur vegetativa et sensitiva secundum substanciam et hec posicio teologorum est

The end phrase *et hec posicio teologorum est* reflects the separate discipline of theology from the point of view of a natural philosopher. Perhaps this is not surprising considering that the contents of the *De differentia* include much material on the soul, and the fact that Augustine is mentioned in the glosses.

In this chapter we have seen the use of Adam of Buckfield's commentaries in the glosses and margins of certain *Corpus vetustius* manuscripts. This is direct textual

evidence of the use of Adam of Buckfield's commentaries in university teaching. We have seen that he was used alongside many notable authorities. His importance for the teaching of natural philosophy is clear. In the next chapter the importance of the university of Oxford for natural philosophy will be seen in the form of the 'Oxford gloss'.

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1 . Noone, 308-316 (p.316).
2 . Burnett, 'The introduction of Aristotle's..., pp.21-49 (p.40).
3 . Note in Adam's commentary Avicenna is mentioned by name here as *commentator.*
4 . W3 reads *artheriarum.*
5 . *Aristoteles Latinus. Supplementa Altera*, ed. by Laurentius Minio-Paluello (Bruges-Paris: Desclée de Brouwer, 1961), p.76 (no.318) BL, Royal 12 G II.
6 This reads *nativitatis* in BL, Royal 12G II, V and BL, Harleian 3487.
7 . The text reads *auditui* this must be *auditu*, as is given in TKP, col.689.
8 . This is a possible scribal error for *agit* which makes more sense and appears below in a similar phrase.
9 . Illegible, tight binding.
10 . Noone, 308-316 (p.308).
11 . S. J. Williams, 'Defining the *Corpus Aristotelicum*: scholastic awareness of Aristotelian spuria in the high middle ages', *Journal of the Warburg and Courtauld Institutes,* 58 (1995), 29-51 (p.43).

Chapter Five: An Example of the 'Oxford gloss'

(i) Introduction:

The purpose of this chapter is to produce an example of the 'Oxford gloss' so that the reader may gain a clearer understanding of the term, and see how this gloss functioned in the thirteenth century. It must be emphasised that the text offered below is most certainly not an edition of the 'Oxford gloss' for the *De differentia*. To produce an edition of the 'Oxford gloss' would require a large amount of research on a great many manuscripts. This is beyond the scope of this thesis. However this tentative example of this type of glossing will be useful for further research. It will show that a number of manuscripts share common glosses that must have originated in Oxford. The number of manuscripts will certainly grow with further research.

There are of course inherent problems in presenting a reading of the glosses from different manuscripts. There was no exemplar for the copying of these glosses. Each manuscript represents an individual student's lecture notes. For this reason they share glosses, but not every gloss appears in every manuscript. This is exactly what we would expect from student lecture notes. The glosses that are common to more than one manuscript exhibit variation common in medieval manuscript. The word order can vary and words are sometimes substituted by other words with similar meanings, which is also to be expected given the oral origins of the glosses. It would be impossible to make an edition of lecture notes, whether medieval or modern. They would share a common source, namely, the lecture, and so would contain much similar material. However, they would be individual

in their selection of the information given in the lecture, even when delivered at dictation speed. Despite these categories of difference, the overall similarity between the glosses is notable.

The very fact that manuscripts do share glosses points to the fact that some form of standard teaching occurred. During the period that the *Corpus vetustius* was being glossed the teaching is unlikely to have remained static; some glosses may have been replaced. With further research it may be possible to attempt a chronology of the manuscripts and therefore of teaching.

I have chosen to base this example of the 'Oxford gloss' on a copy of the *Corpus vetustius* **Durham, DCL, C. III. 17** (see figure J). For the reasons given above, basing an exemplar of the glossing on one manuscript is not entirely satisfactory. However this approach will serve to illustrate that there is an 'Oxford gloss' in what can only be a small step on the way to an edition of this gloss. I have chosen this manuscript for two reasons. Firstly it contains over eight hundred individual glosses. This is the largest number of glosses I have found in any of the manuscripts I have examined. It would seem logical to use this heavily glossed manuscript to compare with the other manuscripts that are rather more lightly glossed in comparison. Secondly I suspect this manuscript is of quite a late date as far as the *Corpus vetustius* manuscripts go. It seems that this manuscript was glossed at Oxford by a monk from Durham, as the inscription on the flyleaf suggests (see Chapter 2) it was to be returned to Durham after this monk had made use of it. Monks did not arrive in Oxford until 1279-80.[1] The manuscript must have been glossed after this date, putting it at the later end of the life of the *Corpus vetustius*. For these two reason I suspect that **Durham, DCL,**

C. III. 17 represents a fairly complete late version of the gloss. This means that it is likely to contain more of the glosses shared by other manuscripts.

After comparing **Durham, DCL, C. III. 17** to other manuscripts I have indicated which glosses are shared. These other manuscripts have in common a number of other glosses that do not occur in **Durham, DCL, C. III. 17.** It would be outside the scope of this thesis to make a complete comparison of all manuscripts containing fragments of the 'Oxford gloss'. In any case it would be a construction of a fullest possible teaching course that may never in practice have been given. The purpose of what is presented here is to demonstrate the working of the system in the accessible manuscripts. I have given the manuscripts sigla. In this way the manuscripts which share the gloss are identified in italic square brackets at the end of each gloss. In normal brackets at the beginning of each gloss I have given the position of the gloss on the leaf in an abbreviated form; "(inter)" for interlinear gloss, "(l or r marg)" for left or right marginal gloss. Where there is more than one column ruled into the margins I have indicated which column is referred to, thus (l inner) means that this gloss is found in the left margin in the column nearest the central text, (r outer) is in the right margin in the column furthest from the central text. Then in squared brackets and bold type I have indicated to what words (or *lemma*) the gloss refers in the central text. The position of each gloss will be indicated in Costa's text in Appendix A, numbered in italic superscript Arabic numerals. This will enable the reader to identify which part of Costa's text a gloss refers to and will stop confusion arising from the slightly different texts of Costa's text in manuscript *D* and in the Wilcox edition. I have tried to keep as true to the manuscripts as possible. I have retained medieval spellings where I have come across them. Obvious mistakes in

spelling and grammar have also been left in as I feel this reflects the aural nature of the glosses. This reading of the Durham manuscript is an attempt at completeness even though a number of readings are without meaning because, as marginal, they are often lost in the binding. But the purpose is partly to aid future comparisons. I have attempted to reproduce as literally as possible the glosses of this single manuscript, because part of the purpose of the exercise is to identify the ways in which manuscripts differ. I have therefore not attempted to restore illegible or lost text by collating other manuscripts. Only partially legible readings have been restored in this way. The literal presentation of the glosses of a single manuscript has another advantage, that of throwing light on the teaching process. The glosses are the result of the student hearing lectures (as Henry of Rainham says in Royal 12 G II) and are not, for example the result of copying an exemplar (which would put the same glosses in the same position of the folio). They are also 'fair copy' written up from notes, presumably taken down in an abbreviated form on wax or 'schedules' at the lecture. Each student would take slightly different notes and expand them slightly differently. Some students wrote consistently longer glosses (like those of Durham CIII 17) than others (like those of Royal 12G II). The shorter glosses omit some material (and are not merely more concise). Further work might show that there are consistent kinds of material omitted, and would perhaps indicate if the omission was magisterial or by the student. There are signs of changes made during the aural and manual processes of writing lecture notes: sometimes a verb is changed to one with a closely related meaning; often the order of words is changed. Blank folios may mean that the lectures were not given or the student missed them. Occasionally a space is left, as if the student hoped to return and supply a word he had

missed.

Detailed comparison of these personal glosses in the different manuscripts might thus reveal details of the teaching process at present obscure. Precisely because we are dealing with an accepted teaching device, the common Oxford gloss, taught to many students by a number of masters, we must follow a protocol different to the medievalist's techniques of establishing a text of a single author (like the commentaries of Adam). Given the existence of the Oxford gloss, the differences between the exemplars is at least as important as their similarities. The presentation here of a literal reading of Durham CIII 17 makes available a text that can be used in detailed comparison with others to illuminate the nature of the Oxford gloss and the procedures of teaching.This can be a check list for later work. Examination in detail of glosses and Costa's text will reveal much about the purposes of the glosses and therefore of university lectures.

Manuscripts used:

Real Bib. de El Escorial, f.II. 4 sigl. *A*

BN, lat. 12953 sigl *B*

Madrid, Bib. nacional 97 244 sigl. *C*

Durham, DCL, C. III. 17 sigl. *D*

BL, Harleian 3487 sigl. *E*

Nürnberg, ML,Cent V 59 sigl. *F*

BL, Royal 12 G II sigl. *G*

BL, Royal 12 G V sigl. *H*

BAV, lat. 2071 sigl. *I*

Some manuscripts were examined which showed no evidence of the 'Oxford gloss'. The *De differentia* is not glossed at all in **BL, Royal 12 G III**. **Durham, DCL, C. III. 18** has very few glosses for this book, consequently it is impossible to find evidence of the 'Oxford gloss'. **BN, lat. 6319** has very few illegible glosses for this book, and again it is impossible to find evidence of the 'Oxford gloss'.

(ii) The glosses on the De differentia in Durham, DCL, C. III. 17

f.381r

1. (l marg) <con>stabulus de differencia spiritus et anime.

2. (inter) [**Interrogasti**] amice ... philosophie et in hoc honorasti me [*Similar to A f.222r (r inner)*[2]*; similar to G f.358v (inter); similar to E f.202rb (inter)*]

3. (inter) [**que est inter spiritum et animam**] et sic tangit causam materialem [*Longer gloss found in A f.222r (r inner)*]

4. (inter) [**in ea**] scilicet differencia inter spiritum et animam [*A f.222r (l inner); C no.4; E f.202rb (inter); G f.358v (inter)*]

5. (r inner) [**ecce scribo**] per hoc tangit causam materialem cum efficiente propinquo et cum efficiente remoto per hoc quod subiungit scribo et cetera [*Shorter gloss found in A f.222r (r outer); shorter gloss found in C f.205v (inter); E f.202rb (r inner); in part F f.214v (inter); G f.358v (r marg)*]

6. (inter) [**ecce scribo**] et sic tangit causam efficientem [*B f.276r (r mid); H f.221vb (r inner)*]

7. (inter) [**quedam collecta**] scilicet de ista differencia inter spiritum et animam [*Similar to F f.214v (inter)*]

8. (l outer) [**traxi**] vel excerpsi

9. (inter) [**vocatur catadon**] quem non habemus

10. (inter) [**catadon**] scilicet q..

11. (inter) [**et eius**] scilicet platonis

12. (r inner) [**theofrasti**] isti enim philosophi aliquantulum tractaverunt de anima.

13. (inter) [**bendedinis**] vel ...dis[3]

14. (inter) [**quem**] librum

15. (l marg) [**gloriosissimi**] gloriosissimus quia inter omnes <loquen>tes de medicina gloriosissima ..sissime locutus est ypocratis ... modum agendi cum sua causa tangit causam formalem cum sua causa [*Shorter gloss in B f.276r (inter); similar to C f.205v (l mid); E f.202va (l inner); in part F f.214v (l inner); G f.358v (inter)*]

16. (inter) [**ex libris**] scilicet que extraxi

17. (inter-r inner) [**membrorum**] scilicet debilitatorum aut a causa extrinseca ut per vulnus aut ab intrinseca ut per intemperanciam humorum [*B f.276r (l outer)*]

18. (inter) [**in ea**] scilicet differencia inter spiritum et animam [*A f.223v (inter); similar to C f.205v (inter); E f.202va (inter); similar to G f.358v (inter)*]

19 (inter) [**quia novi**] prima causa [*B f.276r (inter); C f.205v (inter); F f.214v (inter)*]

20. (inter) [**te**] cui scribo

21. (inter) [**variis**] et ... d..ns

22. (inter) [**et quia**] secunda causa [*B f.276r (inter); C f.205v (inter); F f.214v (inter)*]

23. (inter) [**pre angustia**] idest propter brevitatem [*Longer gloss found in A f.223v (l inner); B f.276r (inter); C f.205v (inter); E f.202va (inter); G f.358v (inter)*]

24. (inter -r inner) [**huiusmodi**] scilicet universalibus vel omnibus ex quibus illum librum extraxi [*Similar to C f.205v (inter)*]

25. (r inner) [**et credo**] per hoc tangit causam finalem que consistit in hoc quod est satisfacere petitioni illius cuius scripsit [*Shorter gloss found in A f.223v (l outer); C f.205v (l inner); similar to E f.202va (l inner); F f.214v (l inner); G f.358v (r marg)*]

26. (inter) [**petitioni**] scilicet ad sciendum differenciam inter spiritum et animam [*shorter gloss found in A f.223v (inter); C f.205v (inter); E f.202va (inter); G f.358v (inter)*]

27. (l marg) [**auxiliante**] quia virtuti immediate debetur <operac>io[4] et non est virtus nisi per deum ut dicit aristoteles [*Similar to C f.205v (r marg); E f.202va (l outer); G f.358v (l outer)*]

28. (inter) [**incipiens dicam**] scilicet prius de spiritu antequam dicatur de differencia inter spiritum et animam

29. (inter) [**primum**] scilicet antequam cognoscantur in comparatione et causa huius est quia

30 (inter) [**harum**] rerum per se et ab<solu>te

31. (inter) [**harum**] rerum

32. (inter) [**uniuscuiusque**] divisim et per se de facili

33. (inter) [**utrumque**] scilicet animam et spiritum

34. (inter) [**opus**] scilicet istud

35. (r inner) [**postea**] quia propinquius est sensu eo quod corpus est quam anima cum sit incorporea [*G f.358v (r marg)*]

36. (inter) [**Spiritus**] scilicet vitalis [*A f.223v (inter); B f.276r (inter); C f.205v (inter); E f.202va (inter); F f.214v (inter); G f.358v (inter)*]

37. (r outer) [**Spiritus**] Ita prius dicendum est de spiritu et anima quam de differencia eorumdem et primo de spiritu autem.

38. (r inner) [**Spiritus**] incipit pars excecutiva[sic]

39. (page bottom) [**Spiritus**] Intellige quod accipitur hic spiritus pro quadam natura media inter animam et corpus compositum complexionatum qua mediante influit anima corpori vitam motum et sensum. [*E f.202va (l inner); G f.358v (l outer)*]

40. (r outer) [**Spiritus**] Nota quod tres sunt spiritus secundum medicos unus qui oritur in corde et extenditur in venas pulsatiles et iste dicitur spiritus vitalis; alius est spiritus naturalis qui oritur in epate et extenditur ad venas non pulsatiles tertius est spiritus animalis qui oritur in cerebro et extenditur per concavitates nervorum de duobus autem scilicet vitali et animali intendit in hoc libro. Item nota quod pulsus est motus cordis et arteriarum factus secundum elevationem et depressionem ad infrigidandum innatum calorem. Item nota quod arteria est corpus rotundum oblongum ad instar cannalis a corde incipiens per totum corpus diffusum aerem vocalem et spiritum continens. spiritus est quoddam corpus etc.

41. (page bottom) [**Spiritus est quoddam**] spiritus dicitur

[i] uno modo omnis substantia incorporea que est res in se secundum quod dicit Aristoteles in libro de celo et mundo quod celum est locus dei et spirituum et sic determinat augustinus

in libro suo de anima et spiritu dicens quod spiritus et anima hominis idem sunt secundum rem, sed differunt in hoc quod dicitur anima secundum quod vivificat spiritus autem secundum quod est aliquid in se. [*H f.222ra (l outer)*]

[ii]. alio modo dicitur spiritus idem quod aer inspiratus sicut tangitur infra in hoc libro.

[iii] tertio modo dicitur spiritus ipsa inspiratio secundum quod querit aristoteles in libro de vegetabilibus utrum plante habent spiritum [*H f.222ra (l outer)*]

[iv] quarto modo dicitur flatus aeris sive ventus secundum quod dicitur in principio tercii eticorum videtur spiritus accu. [*H f.222ra (l outer)*]

[v] quinto modo dicitur spiritus corpus subtile de quo hic determinatur. ((erit aliquid alicui et cetera.

42. (inter) [**quoddam corpus**] ad differenciam anime que non est corpus

43. (l marg) [**corpus subtile**] <quia ex> partibus subtilissimis componitur [*E f.202va (inter); similar to F f.214v (inter); G f.358v (inter)*]

44. (inter) [**in humano corpore**] hic ostendit quia solum de humano corpore loquitur

45. (l marg) [**in humano corpore**] dicit hic ad differenciam spirituum in animalibus quibus animalium quam de spiritibus hominis ...[5] et naturales considerant et non de animalibus hoc propter excellenciam corporis humani.

46. (inter) [**asurinet**] nomen arabicum.

47. (r inner) [**vivificandum corpus**] idest inferendum vitam receptam ab anima ipsi corpori. [*A f.223v (inter); C f.205v (r marg); G f.358v (inter)*]

48. (inter) [**operaturque**] scilicet spiritus vitalis [*A f.223v (inter); similar to B f.276r (inter)*]

49. (inter) [**vitam**] tanquam instrumentum influendo eam corpori [*Similar to E f.202va (inter)*]

50. (inter) [**anelitum**] scilicet attrahendo necessitatem [*A f.223v (inter); E f.202va (inter); similar to G f.358v (r marg)*]

51. (inter) [**pulsum**] scilicet expellendo nocivum [*A f.223v (l inner); E f.202va (l inner); G f.358v (inter)*]

52. (page Bottom) [**pulsum**] est pulsus secundum medicos motus cordis et arteriarum ad infrigidationem caloris et ad expulsionem fumorum superfluorum ut habebitur postea. [*A f.223v (r outer); B f.276r (l outer); F f.214v (l inner); H f.222ra (l inner); G f.358v (l outer)*]

53. (inter) [**similiter**] scilicet spiritus animalis est corpus subtile [*Similar to A f.223v (inter); B f.276r (inter)*]

54. (r outer) [**in nervis**] scilicet continuatis cerebro et sic tangit locum in quibus defertur [*Shorter gloss in A f.223v (r inner); shorter gloss in E f.202va (inter)*]

55. (r inner) [**operatur**] hic diffinit spiritum animalem.

56. (l marg) [**motum**] in hominibus quo cognoscimus aliquid processivum quo aliquid adquirimus. [*Partly found in G f.358v (inter)*]

57. (inter) [**Et quidam**] philosophi

58. (r inner) [**Et quidam**] hic explanat diffinitiones spiritus et primo vitalis

59. (inter) [**laudabilibus**] idest ex parti in attonomia[sic for anatomia]

60. (l marg) [**de his**] Intellige quod intendit hic de spiritu ... quod est medium inter animam et corpus ... quia... est simpliciter incorporeum nec animam non simpliciter corporeo ut

corpore ... sine ... providit natura ut esset aliquod medium ..iens ista duo ad invicem, quod quidem medium est spiritus participans tam naturam anime formaliter quam corporis materialiter unde ratione conveniencie ... habet spiritus cum anima: agit anima in spiritum. ratione autem convenientem quam habet cum corpore: exercet suam operationem quam habet cum corpore.[6]

61. (inter) [**cirugie**] scilicet anatomie [*Similar to C f.206r (inter); similar to G f.358v (inter)*]

62. (page bottom) [..] quod per se est causa vite m.. ?omni viventi sed spiritus est huiusmodi in animalibus est magis natura ... in quibus est maior def..a[7]

f.381v

63. (l outer) [**duo ventriculi**] Nota quod in corpore humano sunt duo genera venarum scilicet vene non pulsatiles in quibus defertur sanguis per totum corpus et iste vocantur communiter vene et vene pulsatiles in quibus defertur spiritus vitalis per totum corpus et iste vocantur communiter arterie, et in hoc libro vocantur vene pulsus.[8] Nota quod aer frigidus primo defertur ad pulmonem et postea ad cor quia subite mutationes corrumpunt naturam et ita cum cor sit membrum calidissimum et aer frigidus intemperatus si antequam ..tur venis sed ad cor de facili posset cum corpore vel ad minus ratione contrarietatis plus ... quam l.. et propter hoc ita providit natura quod aer inspiratus primo debet defert ad pulmonem et a pulmone ad cor et cum colligitur cor pulsat per quam et cetera.

64. (inter) [**concavitates**] scilicet due

65. (inter) [**una**] scilicet concavitas [*A f.223v (inter)*]

66. (inter) [**dextra**] scilicet vocatur dextra cordis auricula

67. (inter) [**sinistra**] scilicet vocatur sinistra cordis auricula

68. (inter) [**sanguis**] ita quod in utroque utrumque [*Similar to A f.223r (inter); similar to B f.296r (inter)*]

69. (r marg) [**dextro**] et dextre parti adiunguntur vene pulsatiles

70. (inter) [**de sanguine**] quantitatem et non universaliter

71. (l inner) [**de sanguine**] et ideo cum sanguis sit principium augmenti quia vel humidum et calidum sunt omnia membra dextra maiora quam sinistra.

72. (r marg) [**in sinistro**] et sinistre parti adiunguntur vene pulsatiles [*In part F f.214v (r marg)*]

73. (r marg) [**sanguis**] et ita patet quod spiritus vitalis principium convenit a corde.

74. (inter) [**dextro**] cordis [*C f.206r (inter)*; *E no.40; F f.214v (inter)*]

75. (inter) [**due vene**] in quibus defertur spiritus vitalis vacua sanguine [*Shorter gloss in E f.202vb (r outer)*]

76. (inter) [**una vadit**] hec dicitur vena latitudinis [*Longer gloss found in C f.206r (r inner)*]

77. (l outer) [**una vadit**] Nota quod dicitur vena longitudinis et latitudinis et non profunditatis quia d..sio secundum profundum principaliter est a superficie ad medium cor autem quod est principium venarum est in medio non in superficie potest etiam dici quod unaque istarum venarum respectu alterius ... secundum profundum et sic non oportet plures venas ponere.

78. (inter) [**per eam**] scilicet venam [*Longer gloss found in A f.223r (inter)*]

79. (r marg) [**anelitus cordis**] scilicet inspiratio et exspiratio mediante aere attracto ad cor et

sic patet quod spiritus operatur anelitum [*to some extent similar to B f.276v (inter); C f.206r (l marg); E f.202vb (r inner); in part F f.214v (l inner); G f.359r (l marg)*]

80. (inter) **[colligitur]** exspirando

81. (inter) **[extenditur]** per inspirationem

82. (inter) **[extensionem]** scilicet attrahendo

83. (inter) **[collectionem]** scilicet expellendo aere

84. (l inner) **[pulsus]** scilicet ad omnes partes tocius corporis quia per cordis collectionem transferuntur spiritus venas replentes et elevantes et per cordis extensionem revocantur isti spiritus et per consequens deprimuntur vene unde pulsus nichil aliud est quam elevatio et depressio vene pulsatiles [*Similar to B f.276v (r inner); shorter gloss found in C f.206r (r outer); E f.202vb (r inner); F f.214v (l inner); G f.359r (r inner)*]

85. (l inner) **[et ideo]** quia spiritus ex corde proveniens se..rat pulsum <u>ideo</u>

86. (l outer) [..] Nota quod medium dicitur vel secundum naturam ut cor in animalibus secundum aristotelem in libro celo et mundo per suam influenciam ad omnes partes et sic non dicitur spiritus medium vel secundum s.. ut est p.. in litera et sic non dicitur spiritus medium vel ut instrumentum est medium inter artificem et suam operationem et sic dicitur spiritus medium.

87. (inter) **[pulsus indicat]** idest spiritus faciens pulsum scilicet medicis, scilicet ?statum

88. (l outer) **[tam equales]** Et sunt equales passiones temperate non excellentes proportionem subiecti neque differentes ab ea: inequales vero sunt excellentes subiecti proportionem et ab ea differentes.[*Similar to A f.223r (l inner); E f.202vb (r outer); G f.359r (l marg)*]

89. (inter) [**tam equales**] idest tam proportionales quam non proportionales

90. (inter) [**diversas**] scilicet pulsus ostendit passiones [*G f.359r (inter)*]

91. (inter) [**diverse cause**] ut egritudines

92. (inter) [**quod**] inpedimentum [*A f.223r (inter); B f.276v (inter); C f.206r (inter); F f.214v (inter); longer gloss in I f.300v (inter)*]

93. (inter) [**ei**] scilicet cordi [*A f.223r (inter); B f.276v (inter); C f.206r (inter)*]

94. (inter) [**semetipso**] idest ex passione existente in ipso

95. (r marg) [**semetipso**] et huiusmodi pulsus indicat medicis que sic innuit ... ... diffinitio cordis a semetipso ipso causatur ut ab intensione caloris quandoque autem ab alio. [*to some extent B f.276v (inter)*]

96. (in0ter) [**sibi vicinis**] scilicet cordis

97. (r marg) [**sibi vicinis**] ut ex calefactione epatis vel pulmonis vel splenis [*Longer gloss found in A f.223r (l outer); longer gloss found in G f.359r (inter)*]

98. (inter) [**extenditur**] scilicet spissitudo

99. (inter) [**predirectam venam**] scilicet latitudinis directam a corde ad pulmonem [*E f.202vb (inter)*]

100. (l inner) [**partem**] ecce quod ... aer nutriens est et per communis malus aer corumpens et ... nutrimentum ... ad illud quod ... substantiam al.. et ad ... ... nisi enim sic esset suffocatur animal propter nimiam caliditatem in eo existentem

101. (r marg) [**partem**] <u>partem</u> dicit quia una pars manet ad mitigationem ipsius pulmonis et forte epatis i<ntellige> enim quod membrum retinet sibi de adveniente necessariam et residuum alii transmitit [*E f.202vb (inter); F f.214v (l outer); G f.359r (r outer)*]

102. (inter) [**aeris**] scilicet inspiratus

103. (inter) [**per anelitum**] idest per attractum interius.

104. (inter) [**calorem naturalem**] excellentem

105 (inter) [**in eo**] scilicet corde [*A f.223r (inter); C f.206r (inter); E f.202vb (inter); F f.214v (inter); G f.359r (inter)*]

105a. (inter) [**sit hoc**] idest aer inspiratus [*A f.223r (inter)*]

106. (inter) [**spiritus**] scilicet vitalis [*C f.206r (inter); E f.202vb (inter); G f.359r (inter)*]

107. (inter) [**ventriculis**] cordis [*Longer gloss in E f.202vb (inter)*]

108. (inter) [**colligatur**] idest constringitur

109. (inter) [**pulsat**] idest expellit [*Longer gloss found in A f.223r (l inner); C f.206r (inter); E f.202vb (inter); G f.359r (inter)*]

110. (inter) [**ipsam**] scilicet venam

111. (l inner) [**pulmonem**] scilicet que sic se extendit a corde ad pulmonem [*E f.202vb (r inner); F f.214v (l inner)*]

112. (inter) [**Quicquid**] scilicet superfluum [*C f.206r (inter); E f.202vb (inter); F f.214v (inter); G f.359r (inter)*]

113. (inter) [**generavit**] in eo corde

114. (r marg) [**vaporum**] vapor proprie potest dici resolutio ex materia liquida, fumus autem ex materia solida sed liquefacta vel humefacta secundum *alvredum* [*A f.223r (r inner); B f.276v (r inner); C f.206r (l marg); E f.202vb (r inner); F f.214v (page bottom); G f.359r (l marg)*]

115. (l outer) [**expellit eos**] hic innuit quod calor in corde est ignitus vel igneus in xvi^{mo} um

de animalibus dicitur quod neque est ignis neque ignis principium et potest dici ignitus vel igneus non quia ignis sit sed propter intentionem caloris.[*B f.276v (l mid); C f.206r (r outer); E f.202vb (r inner); G f.359r (r outer)*]

116. (inter) [**eos**] scilicet vapores et fumos superfluos

117. (inter) [**calore**] scilicet excellenti[9]

118. (inter) [**in eo**] scilicet corde [*A f.223r (inter); E f.202vb (inter)*][10]

119. (inter) [**expellit**] ...[11]

120. (inter) [**eos**] vapores et fumos [*C f.206r (inter); G f.359r (inter)*]

121 (l inner) [**hec vena**] per quam cor expellit vapores et fumos superfluos.

122. (inter) [**pulsus**] idest pulsatiles

123. (r marg) [**alteram vero**] secunda pars istius capituli

124. (inter) [**venam**] scilicet procedentem a dextro ventriculo cordis [*A f.223r (inter); similar to C f.206r (inter); similar to F f.215r (inter); similar to G f.359r (r inner)*]

125. (r marg) [**venam**] ita vena egrediens ex dextro ventriculo procedit ad pulmonem. <u>vero</u> pro sed. et generat pulsum et anelitum [*B f.276v (l mid)*]

126. (inter) [**alataher**] idest venam longitudinis [*In part F f.215r (inter)*]

127. (inter) [**in duas**] idest in duas venas

128. (inter) [**quarum**] partium

129. (r marg) [**petens**] scilicet distribuendo eis sanguinem et spiritum et calorem vitalem [*B f.276v (inter); C f.206r (r marg); E f.202vb (r outer); F f.215r (r inner); G f.359r (l marg) similar postil*]

130. (inter) [**ex ea**] vena [*F f.215r (inter)*]

131. (inter) [**a pectore**] quod est locus cordis [*A f.223r (inter); E f.203ra (inter); F f.215r (inter); similar to G f.359r (inter)*]

132. (inter) [**extrema**] vel exteriora

133. (inter) [**per quos**] scilicet ramos in quibus defertur spiritus vitalis corporis [*Shorter gloss in A f.223r (inter); B f.276v (inter); shorter gloss in E f.203ra (inter); found partly in F f.215r (inter)*]

134. (inter) [**hec pars**] scilicet superior [*A f.223r (inter); C f.206r (inter); E f.203ra (inter); F f.215r (inter); G f.359r (inter)*]

135. (inter) [**altera**] scilicet vena

136. (inter) [**ex eo rami**] scilicet vena vel parte petente inferiora

137. (r marg) [**per quos**] per quos scilicet ramos in quibus defertur spiritus

138. (inter) [**vivificatur**] scilicet per delationem spiritus in eis

139. (inter) [**partis**] tam petentis superiora quam inferiora. [*A f.224v (l inner) superiora and inferiora reverse order; similar to C f.206r (r inner); G f.359r (inter)*]

140. (inter) [**vene**] scilicet longitudinis

141. (inter) [**dispera**] divisi [*Longer gloss found in A f.224v (inter); G f.359r (inter)*]

142. (inter) [**per reliquum**] idest per reliquas partes corporis [*A f.224v (r inner); B f.276v (inter); longer gloss found in C f.206r (l marg); E f.203ra (l inner); F f.215r (inter); G f.359r (inter) but longer gloss*]

143. (l inner) [**reliquum corpus**] in latum profundum dextrum sinistrum [*A f.224v (r inner); C f.206r (l marg); E f.203ra (l inner); G f.359r (inter)*]

144. (inter) [**assurienet**] assurieth

145. (inter) [**et pulsus**] pro idest

146. (inter) [**hec est**] idest vena longitudinis secundum quod in ea defertur spiritus vitalis

147. (l inner) [**hec est**] et ita hec vena est proprinquor causa vite quam aliqua alia vena cum per hanc deferatur virtus sinistri ventriculi in quo plus est de spiritu quam de sanguine [*Similar to C f.206r (l marg); E f.203ra (l inner); F f.215r (r inner); G f.359v (l outer)*]

148. (inter) [**proprinquior**] quam sit vena que est causa anelitus

149. (r inner) [**per hoc**] propter hanc venam que procedit a dextro ventriculo cordis. [*C f.206r (r inner); similar to E f.203ra (l outer); F f.215r (inter); similar to G f.359r (l inner)*]

150. (inter) [**tribuit**] scilicet cor [*G f.359v (inter)*]

151 (inter) [**spiritu**] vitali [*B f.276v (inter); C f.206r (inter); G f.359v (inter)*]

152. (l outer) [..] Nota quod quedam sunt corpora absolute penetrationis et huiusmodi possunt esse sive non occupando maiorem locum sicut duo corpora ... ut due intellige.. duo ... ... etiam corpus potest esse cum corpore solidissimo ... cum ...<.> Unde in ... ... hec ramis clausis. quedam sunt corpora absolute expulsionis et talia nullo modo possunt esse simili ut lapides et ligna et huius, quedam autem sunt corpora medio modo se habencia ut vinum et aqua semper aer et vapor et talia possunt esse sic vel indistinctionem non cum tamen maioris loci occupatione quod autem aer et vapor non sunt absolute expulsionis patet cum posse esse similis vel indistin.. quod autem non sunt absolute penetrationis patet quia maiorem locum occupant.[12]

f.382r

153. (l marg) [**sinistro**] ..alem[13] sic delatum in ista vena ramificata ubique in corpore [*Similar to G f.359v (l inner); H f.222va (l mid)*]

154. (inter) [**et inditium**] sensibile [*E f.203ra (inter)*]

155. (r inner) [**et inditium**] hic probat per signum quod spiritus sit causa vite humane

156. (l marg) [**ventris et oris**] exitum istius spiritus a profundo, et oris scilicet quo <separ>ationem et clausionem quia abeunte spiritu <aperit> se os et deinceps non claudit se actionem pectoris [*Similar to C f.206v (l inner)*]

157. (inter) [**labiorum**] quoad contractionem [*C f.206v (l inner); E f.203ra (inter)*]

158. (r inner) [**pectoris**] propter elevationem et depressionem vehementem que omnia sunt signa mortis.[*C f.206v (l inner); shorter gloss in E f.203ra (l inner); G f.359v (l inner)*]

159. (l marg) [**singultus**] <sin>gultus secundum medicos est motus virtutis <desider>rantis expellere nocivam rem que fit ... repletione et inanitione. et ex ... cibi in stomaco, et mutationem cibi ... qualitates.[14]

160. (inter) [**singultus**] quoad motum oris et quoad motum labiorum, quo ad motum ventris [*E f.203ra (l outer); I f.301r (inter)*]

161. (inter) [**recessio**] quia similis egreditur spiritus et anima

162. (inter) [**exitus eius**] idest spiritus vitalis [*A f.224v (inter); B f.276v (inter); C f.206v (inter); E f.203ra (inter); F f.215r (inter); G f.359v (inter)*]

163. (r inner) [**a corpore**] hic declarat per quam viam exit spiritus a corpore.

164. (inter) [**sit per ipsam**] scilicet per eandem venam [*E f.203ra (inter); F f.215r (inter); G f.359v (inter)*]

165. (l marg) [**ipsam iter**] ... quod causa recessus spiritus et defectus ca.. humoris cum

calore enim et humore ... ... sed accidit iste defectus aliquando ... membri aliquando propter membri corpore ... naturalem defectum et infrigidationem in ... membri accidit defectus iste quia ... non derfertur a membro ad ... per medium ablato medio cessat ... humoris.[15]

166. (inter) **[quo]** idest per quam venam

167. (inter) **[ad ipsum]** cor

168. (inter) **[aer]** scilicet inspiratus qui propter hic dicitur spiritus a medicis

169. (inter) **[quia]** quia scilicet huius spiritus

170. (inter) **[per venam]** scilicet latitudinis

171. (inter) **[que]** vena [*E f.203ra (inter)*]

172. (inter) **[aerem]** a pulmone ad cor inspiratum.[*G f.359v (inter)*]

173. (inter) **[vaporem]** scilicet superfluum [*C f.206v (inter)*]

174. (inter) **[fumi]** scilicet adusti [*E f.203ra (inter)*]

175. (inter) **[talamum]** idest per venam que vocatur trachea arterea [*C f.206v (inter); E f.203ra (l inner); similar to F f.215r (inter); G f.359v (inter)*]

176. (inter) **[et]** pro idest

177. (inter) **[guttur]** idest per venam que vocatur trachea arterea

178. (inter) **[eius]** scilicet spiritus [*Longer gloss found in A f.224v (inter); C f.206v (inter); F f.215r (inter); G f.359v (inter)*]

179. (inter) **[a se]** ipso

180. (inter) **[claudi]** scilicet os [*A f.224v (inter); B f.277r (inter); F f.215r (inter)*]

181. (r outer) **[claudi]** Nota quod causa quare ora et palpebre aperiuntur in hora mortis est quia calor naturalis cuius per se est extendere et dilatare, in hora mortis destruitur et

frigiditas cuius per se est constringere et contrahere partes ad invicem inducatur et sic partes palpebrarum contrahuntur et super labia per frigiditatem inductam in morte tantum quod de se non possunt claudi. et autem se non potest claudi.

182. (inter) [**claudatur**] scilicet ab alio si debeat claudi [*Shorter gloss in B f.277r (inter); C f.206v (inter); E .203rb (inter); G f.359v (inter)*]

183. (inter) [**annullationem**] idest pre exitum

184. (inter) [**spiritus**] qui quidem spiritus sunt causa quare os poterit claudere et aperire se.

185. (inter) [**ab eo**] scilicet ore [*B f.277r (inter)*]

186. (inter) [**spiritus**] vitalis [*A f.224v (inter); C f.206v (inter); G f.359v (inter)*]

187. (inter) [**et**] pro idest

188. (r outer) [**tarditatis**] Nota quod in illis apparet maior gravitas mortis et quibus est maior calor naturalis circa cor et hoc maior est in parvis quando moriuntur in illis autem non de facili destruitur calor naturalis circa cor et imo de facili apparet levitas mortis.

189. (inter) [**tarditatis**] exitus est

190. (inter) [**levitas**] hoc est propter debilitatem virtutis resistentis [*Longer gloss in C f.206v (l inner)*]

191. (r inner) [**et mortis**] ut quando egreditur cum fortitudine ut in vulneratis vel si virtus resistens sit alio modo potens respectu egritudinis qua pugil equalis ferre virtutis cum pugili. [*G f.359v (l inner)*]

192. (l marg) [**gravitas**] virtus resistens sit aliquo modo potens ... ut sit inter ipsa quasi pungna

193. (inter) [**apparitio**] scilicet exitus spiritus corporaliter. [*Shorter gloss found in A f.224v*

(inter)]

194. (inter) [**quibusdam**] scilicet est manifesta

195. (l marg) [**in aliis**] easdem causas quanto enim virtus alia maiorem habet resistenciam tandem fuerit ... virtus forcius et manfiestius effectum consequitur.[*C f.206v (r marg); E f.203rb (r inner); similar to F f.215r (inter); G f.359v (l outer)*]

196. (r outer) [**Causa autem subitanee mortis**] Mortis subitanee materialiter potest esse causa, aut enim ex superfluo et vehementi gaudio et subita admiratione; et sic extenduntur et dilatantur spiritus ad partes exteriores et elongantur a corde item, quod antequam redeat, mortificatur cor vel penitus ipsum cor ex nimia dilatatione extinguitur. Aut ex vehementissimo terrore, et ita spiritus in tantum trahitur ad cor et elongatur ab aliis membris, quod antequam redeat ad illa, mortificantur, vel pocius ipsum cor ex nimia constrictione constringitur, aut ex obturatione meatuum vel venarum per quas debet spiritus transsire[sic] ad vivificandum totum corpus, aut morte violencia que accidit ex lesione subita alicuius membri principalis ab aliquo extrinseco. Eisdem causis accidit aliquando mori pre nimia tristicia vel ira et est tristicia secundum Ysaac solicitudo et angustia propter amissionem amati et fugam quesiti aut si accidit aliud in venam inspirationis et exspirationis inpediens transsitum[sic] aeris ad cor suffocatur animal.

197. (inter) [**et cetera tali**] ut de exitu spiritus in tali move

198. (inter) [**aliena**] scilicet inpertinencia ad istum librum [*A f.224r (inter)*]

199. (inter) [**medicorum**] idest in medicina [*Similar to E f.203rb (inter); similar to G f.359v (inter)*]

200. (inter) [**quorum**] argumentorum

201. (inter) [**eorum**] idest mortis subitanee et huius [*G f.359v (inter)*]

202. (r outer) [**commemorationem**] secundum quod promissimus in prohemio et nos velle uti maxima brevitate

203. (inter) [**quod**] per hoc

204. (inter) [**diximus**] scilicet supra ab illo loco alteram vero venam [*F f.215r (inter); C f.206v (inter)*]

205. (inter) [**hunc spiritum**] scilicet vitalem [*A f.224r (inter); E f.203rb (r outer); F f.215r (inter); G f.360r (inter)*]

206. (l marg) [**ventriculis cordis**] ... ... fuerint per eandem predictam venam scilicet alathar. sed per venam a ... ad pulmonem procedentem ut ... dictum est, et quia pulsus et cetera[16]

207. (inter) [**et quod pulsus**] scilicet patet a principio capituli usque ibi alteram vero [*Shorter gloss in A f.224r (inter)*]

208. (inter) [**constituti**] in animali [*A f.224r (inter); C f.206v (inter); F f.215r (inter); G f.360r (inter)*]

209. (inter) [**ad**] idest secundum

210. (inter) [**eiusdem**] scilicet vitalis

211. (inter) [**de foris**] scilicet ... ab extrema

212. (inter) [**ab eo**] corde

213. (r inner) [**ab eo**] et sic sit pulsus [*Longer gloss found in C f.206v (l inner); G f.360r (inter)*]

214. (r outer) [**anelitus**] hic similiter anelitus principaliter pro ingressu aeris ad mitigationem caloris et ad sustentionem spiritus vitalis et pulsus pro expulsione vaporum a corde per

pulmonem [*E f.203rb (r outer)*]

215. (r inner) [**emanatio**] scilicet ortus et fluxus [*E f.203rb (inter); G f.360r (inter)*]

216. (l marg) [**Spiritus**] ... est de spiritu procedente a corde vero pro sed

217. (l marg) [**Spiritus**] scilicet spiritu procedente a cerebro[17]

218. (inter) [**procedit**] scilicet immediate non cum primo [*Similar to E f.203rb (r inner)*]

219. (inter) [**transsit[sic]**] inde

220. (inter) [**ad cetera**] scilicet sensitiva motiva [*E f.203rb (inter); G f.360r (inter)*]

221. (inter) [**animalis**] scilicet spiritus [*B f.277r (inter); F f.215v (inter)*]

222. (inter) [**cuius**] scilicet spiritus animalis [*B f.227r (inter); F f.215v (inter)*]

223. (inter) [**spiritus**] vitalis [*G f.360r (inter)*]

f.382v

224. (inter) [**qui**] spiritus vitalis

225. (inter) [**assurienet**] idest particularis vene [*G f.360r (inter)*]

226. (r marg) [**assurienet**] idest particulare vene assurieneth asscendent[sic] ad capud deferentes spiritum vitalem vivificantem partem superiorem animalis.

227. (inter) [**alathar**] vel aladar idest vena longitudinis pulsus

228. (l inner) [**os**] scilicet os ita quod ad eius profundum perveniant.

229. (l outer) [**os capitis**] vel sic os capitis[sic]

230. (inter) [**omnes**] scilicet illi rami et vene ad principium

231.(inter) [**omnes**] iste vene particulare

232. (inter) [**contexuntur**] circa summam cerebri

233. (inter) [**ad instar**] scilicet ad modum [*C f.207r (inter); F f.215v (inter); G f.360r (inter)*]

234. (inter) [**de ipsis pulsibus**] idest de venis pulsus [*B f.227r (inter); C f.207r (inter); E f.203va (inter); similar to G f.360r (inter)*]

235. (inter) [**extensis**] vel contextis

236. (inter) [**quedam pars**] scilicet istius vene sic extense vel contexte

237. (inter) [**apta**] pars dico [*Longer gloss in A f.224r (inter); B f.227r (inter); E f.203va (inter); F f.215v (inter); G f.360r (inter)*]

238. (r marg) [**spiritum animalem**] Ita quod spiritus qui primo fuit vitalis coninduat naturam spiritus animalis [*A f.224r (r inner); C f.207r (l marg)*]

239. (l inner) [**tradens**] <u>tradens</u> scilicet ad eius sustenationem

240. (inter) [**ei de spiritu**] spiritui scilicet parti inferiori cerebri [*B f.227r (l inner); similar to C f.207r (r inner)*]

241. (inter) [**quem**] scilicet spiritum

242. (l outer) [**Cerebro vero dividitur**] <u>Cerebro vero dividitur</u>. Nota quod dicit Augustinus in libro suo de spiritu et anima quod tres sunt virtutes quibus anima coniungitur corpori prima naturalis et est in epate; secunda vitalis et est in corde; tercia animalis et est in cerebro et inde facit unusquosque sensus corporis tres vero sunt ventriculi cerebri. Unus anterior a quo omnis sensus et alter posterior a quo omnis motus tercius inter utrumque medius scilicet rationalis; et in prima parte cerebri vis animalis vocatur fantasia scilicet ymaginativa quia corpora animalium et rerum similitudines et ymagines continentur in ea in media vero parte cerebri vocatur rationalis qui ibi examinat et indicat ea que per ymaginationem

supersentantur; in ultima parte est memorialis quia ibi comandat memorie ratione indicata. [*B f.227v (l mid); in part F f.215v (l inner)*]

243. (l inner) **[Cerebrum]** hic dividit cerebrum ad ?cumdicendum qualiter spiritus vitalis defertur ad cerebrum.

244. (inter) **[divisiones]** et non dicit partes quia inter illas est medium

245. (inter) **[anterior]** in hanc viget sensus ymaginatio

246. (inter) **[altera vero posterior]** et in hanc viget memoria [*Similar to B f.227v (inter); similar to F f.215v (r marg); similar to G f.360r (inter)*]

247. (inter) **[anteriori]** parte cerebri

248. (inter) **[ventriculi]** in uno viget sensus et fantasiva[sic] in alio ymaginatio [*This gloss is partially found in B f.227v (inter)*]

249. (l inner) **[ad commune spacium]** et per hoc intendit quod vel est medium sive pellicula inter istos ventriculos

250. (inter) **[spacium]** idest spacium in quo viget ratio

251. (inter) **[in posteriori]** parte cerebri [*A f.225v (inter); B f.227v (inter); C f.207r (inter); F f.215v (inter)*]

252. (r marg) **[posteriori]** sciendum secundum medicos in posteriori cellula viget memorativa quia secundum ipsos sensus omnium rerum preacceptarum depinguntur in hac cellula ad quas sit futurus cum fit reminiscencia de preteritis.

253. (l outer) **[faciens]** et ita dicunt quod sic pellicula media inter istas partes cerebri de qua postea tangitur sed inter anteriorem et mediam non est medium.

254. (inter) **[faciens]** scilicet habens [*Longer gloss found in A f.225v (r inner); E f.203va*

(inter); G f.360r (inter)]

255. (inter) [**commune**] ita quod est continuum illis

256. (inter) [**pulsus**] idest vene pulsus deferentes spiritum vitalem [*In part B f.227v (inter); C f.207r (inter); G f.360r (f.360r (inter)*]

257. (inter) [**reti**] contexte quod est vel sic scilicet a venis contextis ad modum retis [*B f.227v (inter); longer gloss found in C f.207r (r inner); similar to E f.203va (l inner); found partly in F f.215v (inter); similar to G f.360r (inter)*]

258. (inter) [**pervenerit**] scilicet pulsus deferentes spiritus [*E f.203va (inter); similar to F f.215v (r marg); G f.360v (inter)*]

259. (inter) [**ventriculum**] ut ad primum [*A f.225v (inter); C f.207r (inter); E f.203va (inter); G f.360v (inter)*]

260. (inter) [**in cerebro anteriori**] idest anteriori parte cerebri

261. (inter) [**ad eum**] ventriculum con..tantem spiritum animalem ibidem existentem

262. (r marg) [**qui**] <u>qui</u> scilicet spiritus vitalis vel sic idest qui vitalis fit animalis. [*Shorter gloss found in A f.225v (inter); B f.227v (inter); found partly in F f.215v (inter)*]

263. (r marg) [**inde**] <u>inde</u> scilicet ab illa parte anteriori.

264. (inter) [**alium**] idest ad partem mediam

265. (inter) [**ibi**] in secundo ventriculo [*E f.203va (inter); F f.215v (inter)*]

266. (l outer) [**subtilior**] scilicet mediante virtute intellectiva secundum medicos secundum autem averoys mediante virtute cogitativa et distingtiva[sic] tantum [*Similar to A f.225v (l inner); B f.227v (r inner); C f.207r (l marg); E f.203va (l outer); F f.215v (l inner); G f.360v (l outer)*]

267. (inter) [**purgatur**] scilicet spiritus

268. (inter) [**anime**] scilicet rationalis que est in media parte cerebri

269. (r marg) [**digestio**] cuius ratio est quod subtilior apprehensio ratio est cogitativam quam sensitivam et ratio quam ymaginatio[sic] et imo spiritus subtiliatur in medio.

270. (inter) [**subtiliorem**] quantum ad effectum

271. (l outer) [**subtiliorem atque puriorem**] averoys[sic for Averroes] super tertio de anima omne subtiliatum sit magis clarificatum [*A f.225v (r inner); B f.227v (r outer); longer gloss found in C f.207r (r outer); longer gloss in E f.203vb (inter); F f.215v (r marg); G f.360v (l outer)*]

272. (inter) [**transsit[sic]**] spiritus vitalis factus animalis

273. (l inner) [**deinde transit**] hic apparet quod spiritus animalis habet ortum a corde primo.

274. (inter) [**ventriculis**] scilicet partis anterioris [*Similar to C f.207r (inter); similar to G f.360v (inter)*]

275. (inter) [**spacium**] commune interiorum

276. (inter) [**ipsum**] idest per consimiliem

277. (inter) [**quo**] meatu [*A f.225v (inter); E f.203vb (r inner); G f.360v (inter)*]

278. (inter) [**spatio**] scilicet commune spacium

279. (inter) [**ipso transitu**] idest in ipso interitu

280. (inter) [**vadit**] a media parte ad posteriorem

281. (inter) [**spacium**] et p..

282. (r marg) [**vermi**] claudenti se unde per hoc signa quod huius pellicula sit figura circularis. [*Shorter gloss found in A f.225v (inter); G f.360v (r marg) but only first three*

words of gloss]

283. (l inner) [**deprimitur**] cum ingreditur et egreditur spiritus

284. (l outer) [**deprimitur**] sed quid vadit spiritus ab anteriore parte cerebri ad posterius

285. (inter) [**spacium**] scilicet commune spacium

286. (inter) [**ventriculis**] cerebri prioris

287. (inter) [**posterioris**] idest per ... et tunc transsit[sic] spiritus

288. (inter) [**deposita**] idest depressa illa particula et pellicula est non transsit[sic] spiritus [*first two words found in C f.207r (inter); first two words in E f.203vb (inter); found partly in F f.215v (inter); first two words in G f.360v (inter)*]

289. (l inner) [**cum vero**] determinat quando facit eos effectus

290. (inter) [**posterius**] cerebrum [*B f.227v (inter)*]

291. (l inner) [**hoc**] idest talis apertio vel talis transsitus[sic] spiritus ad posterius.

292. (inter) [**non**] non oportet fieri

293. (l outer) [**quo fit**] tunc enim necesse est spiritum animalem qui est in parte cerebri in qua viget memoria confortari per spiritum vitalem advenientem ut possit suam operationem melius exercere, quo fit.

294. (inter) [**ad posterius**] idest ad partem exteriorem cerebri

295. (inter) [**recordatur**] homo rei preterite [*Shorter gloss in G f.360v (r marg)*]

296. (r marg) [**recordatur**] quamvis velit recordari [*E f.203vb (inter); similar to G f.360v (inter)*]

297. (inter) [**eorum**] preteritorum [*A f.225r (inter); E f.203vb (inter); F f.216r (inter)*]

298. (l outer) [**Illa vero**] Nota quod spiritus habet ortum a corde et cerebro secundum quod

hic loquitur de spiritu et processum in venis et nervis et generat vitam et pulsum atque anelitum motum et sensum, in quandocumque igitur est carencia cordis et cerebri in eodem est carencia spiritus sed celum caret partibus huius cum fit corpus simplex et u.. et ita in eo non est spiritus, quamvis etiam celum habeat vitam non tamen illam quam operatur spiritus vitalis quia spiritus vitalis operatur vitam que anelitu et pulsu generatur cuius non est in celo nec etiam hanc spiritum animalem quia non movetur motu processivo, nec sensum habeat et huiusmodi operatur spiritus animalis, per istud idem patet quod plante non habent spiritum animalem non quia in eis non inest motus processivus vitalem non; quia non habent pulsum et anelitum cum anelitus non dicitur propter attractionem quorumcumque. sed solum modo aeris inspirati ad mitigationem caloris naturalis que plantis neccessaria non est: pulsus in quem operatur spiritus non est expulsio superfluitatum quarumcumque sed scabiei et apostematum sed fumosarum superfluitatum que in venis maxime habundant et talis expulsio non est in plantis, ista autem expulsio in plantis que est gummi et aliarum superfluitatum sine spiritu potest fieri sicud possunt fieri plures expulsiones superfluitatum in animalibus. Causa autem quare vegetatam influit vitam plantis immediate et sine spiritu animalibus. mediante spiritu tanquam organo est quod vegetativam plantarum magis materialiter est et ignobilior et sic cum sit materie propinquor, non indiget spiritu medio, veg<et>ativa autem animalium, nobilior est et minus materialiter et propter hoc magis indiget medio quo vitam influat vapori.

299. (inter) [**quod**] scilicet corpus

300. (inter) [**assimilatur vermi**] claudenti se [*A f.225r (inter) different word order; E f.203vb (inter); G f.360v (inter)*]

301. (inter) [**hominibus**] in quibus proprie est memoria [*B f.227v (inter)*]

f.383r

302. (l marg) [**et tarditate**] ..is et tarde invenientes.

303. (inter) [**enim hec**] scilicet apertio [*Longer gloss in A f.225r (inter); B f.277v (inter); longer gloss in E f.203vb (inter); G f.360v (inter)*]

304. (inter) [**tardius**] propter minorem habilitatem vermis ad elevandum a foramine [*C f.207v (l inner); E f.203vb (r inner); similar to F f.216r (inter); G f.360v (r inner)*]

305. (inter) [**tardius**] quia non cito recordari res prius scitum[sic]

306. (inter) [**ad repondendum**] scilicet ad interrogata que prius sciverunt

307. (r inner) [**et ideo accidit**] quia memoria sit huius foraminis apertione <u>ideo</u> [*C f.207v (inter); G f.360v (inter)*]

308. (r inner) [**et ideo**] quia memoria sit ex tali apertione <u>ideo</u>

309. (inter) [**alicuius**] preterite scilicet modum inferius

310. (inter) [**illegible**] ..ga

311. (inter) [**declinando**] ut per motum capitis aperiatur illud foramen

312. (l marg) [**retrovertat**] <retrovert>at scilicet valde

313. (inter) [**immotis**] idest valde motis. [*F f.216r (r outer)*]

314. (r outer) [**immotis**] vel <u>immotis</u> scilicet non motis sive quiescentibus a motu quia si moverentur oculi moverentur et nervi per quos defertur spiritus ad oculos, et ita inpedentur spiritus a transsitu[sic] in posteriorem ventriculum cerebri. [*Shorter gloss in A f.225r (r outer); B f.278r (inter); found partly in C f.207v (l inner); found partly in F f.216r (r*

outer)]

315. (inter) [**conspiciat**] scilicet valde

316. (inter) [**ut hec positio**] idest talis ordinatio

317. (inter) [**sit ei figura**] homini recordare volente

318. (inter) [**corpus simile**] vel vermile idest se vermi

319. (inter) [**elevari**] sursum et ita spiritus pertransire ut fiat memoria.[*C f.207v (r marg); shorter gloss in E f.204ra (l outer); G f.361r (inter)*]

320. (l marg) [**Intellectus**] ... scilicet communiter respectu operationum ... anime rationalis. vel intellectus quoad

321. (inter) [**Intellectus**] Idest accus intelligendi respectu presencium scilicet preteritorum respectu futurorum [*found partly in F f.216r (inter)*]

322. (inter) [**ventriculo**] scilicet medio [*A f.225r (inter)*]

323. (r inner) [**ventriculo**] Ita dictum est que sunt operationes procedentes a spiritu in anteriori ventriculo capitis vel cerebri existente et in posteriori enim pro quia.[*C f.207v (r marg); G f.360v (l marg)*]

324. (inter) [**qui**] scilicet ventriculus medius

325. (inter) [**participat**] idest signatur

326. (l marg) [**illis**] illis idest secundum partem capitis ab uno ventriculo partem ab alio

327. (inter) [**in anteriori**] idest per spiritum qui est in media parte cerebri

328. (inter) [**cogitaverit**] de preteritis [*F f.216r (inter)*]

329. (inter) [**previderit**] scilicet ab de futuris[sic]

330. (inter) [**commune spacium**] Idest inter medium ventriculum et posteriorem

331. (l marg) [**quod**] quod scilicet commune spacium [*Shorter gloss in A f.225r (inter)*]

332. (inter) [**in posteriori**] scilicet parte cerebri

333. (inter) [**clausus**] foramen

334. (l marg) [**commune spatio**] scilicet in qui vigent intellectus cogitatio providencia [*A f.225r (inter)*]

335. (inter) [**communi spatio**] ut in medio ventriculo [*F f.216r (inter); similar to G f.361r (inter)*]

336. (r inner) [**moras**] ne transseat[sic] ad posterius vis intellectiva [*G no.205 but is shorter gloss*]

337. (inter) [**et**] pro idest

338. (inter) [**sit et hoc**] licet scilicet sit facere moram

339. (inter) [**ut sit**] ... ...[18]

340. (r inner) [**et ideo accidit ei**] quia clausio illius foraminis vel mora spiritus in dicta parte comfortat intellectum ideo

341. (inter) [**cogitat**] scilicet multum

342. (inter) [**ad terram**] ut quiescat

343. (l marg) [**eam**] et non motis ne motus oculorum sit ... apertionis foraminis et ita sit causa ... spiritus ad partem memorialem.[19]

344. (inter) [**incurvetur**] ?co^{m} corpus

345. (inter) [**in ea**] terra [*A f.226v (inter); B f.278r (inter); E f.204ra (inter); F 216r (inter); G f.361r (inter)*]

346. (inter) [**ut sic hoc**] si huiusmodi aer et inclinatio [*B f.278r (inter)*]

347. (inter) [**ponendum**] scilicet reprimendum

348. (inter) [**simile vermiculo**] et ita ad claudendum foramen

349. (inter) [**transsit[sic]**] a media parte

350. (inter) [**ad posteriora**] ubi viget memoria [*C f.207v (inter); F f.216r (l marg); G f.361r (inter)*]

351. (r inner) [**Spiritus autem**] hic dat diversitatem operationum spiritus in animalibus.

352. (inter) [**hominibus**] diversis [*B f.278r (inter)*]

353. (inter) [**quibusdam**] hominibus [*A f.226v (inter); E f.204rb (inter); G f.361r (inter)*]

354. (r inner -outer) [**quibusdam**] Nota quod de preteritis universaliter secundum quod preterita sunt certissima et discreta potest esse cognitio et propter hoc respondet illis pars cerebri discreta et distingta[sic]. Futura vero certam et distingtam[sic] cognitionem non habent nisi in relatione ad presencia et ideo cognitionem futurorum non respondet pars distingta[sic] cerebri alia ab ista parte que debetur cognitioni presencium.

355. (inter) [**subtilis**] scilicet est spiritus ille scilicet ubi non admiscetur malis humoribus

356. (l marg) [**et hic**] et hic scilicet spiritus universalis homo in quo viget spiritus subtilis et cetera

357. (inter) [**dispositorum**] scilicet rerum que debent disponi [*F f.216r (inter)*]

358. (l marg) [**erit econtrario**] ... grossus et turbidus propter commixtionem ... malorum humorum.[*Shorter gloss in A f.226v (inter); similar to E f.204rb (r inner)*][20]

359. (inter) [**eritque talis**] scilicet habens talem spiritum grossum quia sine discretione bene speculandi

360. (r inner) [**amens**] amens quod sine discretione bene operandi [*B f.278r (l inner); E*

f.204rb (r inner); part G f.361v (l outer); longer gloss in I f.302r (r inner)]

361. (r inner) [**levis**] levis cum operatio ponderatur[21]

362. (inter) [**stultus**] sine discretione hanc ...illa [*B f.278r (l inner)*]

363. (l marg) [**Et ex ventriculo**] ventriculo cerebri anterioris procedunt Nota quod duo sunt genera nervorum sunt enim quidam nervi solidi qui sunt solidissima pars corporis preter os et illi sunt ad sustentamentum corporis non ministrantes sensum et motum quia nichil sentiunt ut dicitur in libro de animalibus; alii sunt nervi concavi in quibus deferuntur spiritus animales a cerebro ad singula <mem>bra et huius nervis ponitur a commentatore[22] instrumentum tactus<.> Nec contradicit huic quod dicitur in de animalibus quod in cerebro non est nervi quia ibi loquitur de nervo proprie dicto qui solidus est et non concavus.[23]

364. (inter - r inner) [**paria nervorum**] in quibus defertur spiritus animalis qui est principium sensus nec tamen intellige quod unumquoque istorum mediante spiritu causet et sensum sed magis motum in partibus quibusdam non sentientibus ut in nervis. [*C f.207v (r marg); similar to G f.361v (r marg)*]

365. (inter) [**anterioribus**] scilicet partibus cerebri

366. (inter) [**eos**] nervos [*C f.207v (inter); F f.216r (inter); G f.361v (inter)*]

367. (l marg) [**visus**] ... spiritus delatus in istis nervis est causa ... visus[24]

368. (inter) [**et isti**] scilicet nervi deferentes spiritum ad visum [*C f.207v (inter); E f.204rb (inter); G f.361v (inter)*]

369. (inter) [**nervos**] scilicet directos ad alios sensus

370. (inter) [**concavi**] ut possuit materialem de spiritu continere.

371. (l marg) [**spiritus qui mittitur**] maxime inter omnes sensus exercet visus ... opus

exterius.

372. (r inner) [**collectus**] scilicet collectione virtuali cum tamen careat grossicie.[*B f.278r (inter); C f.207v (r marg); E f.204rb (inter); G f.361v (inter)*]

373. (inter) [**nulli alii**] Idest nulli malo humori [*F f.216v (inter)*]

374. (l marg) [**palpebris**] ut per virtutem earum possit oculus prohiberi ab extrinsecis nocivis secundum quod dicitur ..ii. de animalibus quod animal claudit oculum ut non cadat super ipsum aliquod extrinsecum. [*A f.226v (l outer); in part B f.278r (l inner); similar to C f.207v (l inner); E f.204rb (r inner); F f.216v (l inner); G f.361v (l inner)*]

375. (inter) [**tertium**] par nervorum [*B f.278r (r inner)*]

376. (inter) [**quartum**] par nervorum [*Found in slightly longer gloss F f.216v (inter); G f.361v (inter)*]

377. (r outer) [**palato**] Nota quod non tangit qualiter aliis nerviis transmutatur ad olfactum quia ipsum cerebrum magis est instrumentum olfactus et proximiter qua instrumentum alicuius alterni sensus.

378. (r inner) [**palato**] Nota quod propter subtilitatem sensibilis non facit in communi de nervis transmissis ad instrumentum tactus quia tactus non viget in una parte corporis determinata vel de tactu in communi facit per hoc quod dicit nervos transmutari ad exta. Scilicet ad quedam interiora et forte de rubro est immediate instrumentum sensus odoratus vel ad minus eius instrumentum immediatius est adherens cerebro qua instrumentrum alicuius alternis ut vult Aristoteles in libro de sensu et sensato.

379. (r inner) [**palato**] ut fiat delectatio gustatur quia ad hoc quod animal recte nutriatur necesse est ut delectetur in nutrimento.

380. (Page Bottom) [**timpano**] per timpanum intellige aerem connaturalem existentem in aure vel quandum particulam tenuem [*Shorter gloss in E f.204rb (r inner); same gloss in G f.361v (l outer) but gloss ends differently*]

f.383v

381. (inter) [**sextum**] par nervorum [*Part of slightly longer gloss F f.216v (inter)*]

382. (l outer) [**exta**] Et nota quod exta vocat illas partes corporis in quibus est alia digestio solum cum sensu tactus. Nota quod ulula est pellicula que aliquando laxatur ante introitum gutturis impediens gustum atque sermonem [25]. ... etiam quod ... est corpus illud quod ... in palato formatum ad ?medium ... ?sine mam...illarum et est rotundum oblongum quo aer ... ad pulmonem expiratur[26]

383. (inter) [**ad exta**] idest ad membra digestiva [*F f.216v (inter)*]

384. (inter) [**eis**] scilicet partibus inferioribus

385. (l inner) [**ex eo**] scilicet spiritu qui defertur in isto pari nervorum

386. (l outer) [**iululam**] vel sive ululam scilicet ad partem interiorem vel ... cerebri vel pocius ad quamdam partem ... canne pulmonis que dicitur ... unde secundum quosdam ulula in ... pellicula et cetera[27]

387. (inter) [**ululam**] idest ad quamdam partem cannalem pulmonis scilicet partem

388. (inter) [**colligatur**] ut spiritus ... dispergatur

389. (inter) [**sursum**] vel sursum idest ad singulas partes vitales [*G f.361v (inter)*]

390. (inter) [**septimum**] par nervorum

391. (l outer) [**septimum**] Intellige quod in septimo pari nervorum et in tertio dicitur aliquod

iungi lingue ad hoc ut causatur motus in ea, ad significac<ionem> quod duplex est motus lingue unus est ad gustum alius ad locutionem ut huiusmodi ab aristoteli in quo de anima ligua[sic] convenit in duo opera nature et cetera. [*C f.208r (r outer); E no.256; F f.216v (page bottom); G f.361v (l outer)*]

392. (l inner) [**ligue**[sic]] propter hoc quod ligua[sic] congruit in duo opera nature scilicet gustum et loquelam

393. (inter) [**per quod**] ad generandum sermonem ligue[sic]

394. (inter) [**nervi**] ita quod unusquique per spiritum qui defertur in spiritus

395. (r marg) [**indicium huius rei**] Scilicet quod isti nervi sic missi a cerebro per spiritum existentem in eis operatur sensum

396. (inter) [**aliquod accidens**] idest impedimentum

397. (inter) [**nervorum**] predictorum

398. (l inner) [..] vel ... ad quod ... huius nervus.[28]

399. (inter) [**ad membra**] ad que ... ...

400. (inter) [**opus**] scilicet sensus

401. (inter) [**ut aqua**] idest re... vel autem vapor aquosus [*F f.216r (r marg)*]

402. (r marg) [**colligatur**] colligatur ad generationem pupille.

403. (inter) [**inter spiritum**] scilicet animalem [*C f.208r (inter); G f.361v (inter)*]

404. (inter) [**in nervo**] scilicet misso a cerebro ad oculum

405. (l inner) [**aspectum**] et aspectum scilicet spiritum sensibilem qui debet conspici

406. (inter) [**operatur**] et ita operatur opus oculi propter tamen conglutinationem [*Shorter gloss found in G f.361v (r marg)*]

407. (inter) [**spiritum**] scilicet animalem [*A f.226r (inter); C f.208r (inter); G f.361v (inter)*]

408. (l inner) [**timpanum auris**] Idest aerem existentem in auri vel scilicet tenuem pelliculam.

409. (inter) [**instrumentum tactus**] gustus sive

410. (inter) [**tactus odoratus**] destructionem

411. (inter) [**cum aperti**] scilicet prius clausi per quos potest iste spiritus transire [*Shorter gloss found in C f.208r (inter); similar to G f.362r (inter)*]

412. (r marg) [**directionem**] scilicet per potenciam nature purgantis meatum et delentis infirmitatem

413. (inter) [**efficitur**] scilicet illud membrum [*C f.208r (inter); shorter gloss in E f.204va (inter); F f.216v (inter) slightly longer gloss; G f.362r (inter) different word order*]

414. (l inner) [**equale**] scilicet in debita proportione ad opus suum et sic deffectu huius spiritus facit deffectum sensus et presencia presenciam patet propriam. [*B f.278v (inter-r inner); similar to C f.208r (l marg); seems to be similar to G f.362r (inter)*]

415. (r marg) [**nuca**] nuca dicitur a quibusdam supra nervosa que est principium nervorum multorum tanquam congregat ad invicem in ipsa. [*Similar to I f.302v (l inner)*]

416. (inter) [**quedam pars**] nervosa [*C f.208r (inter); F f.216v (inter); G f.362r (inter)*]

417. (inter) [**colli**] scilicet in omnia ligamenta [*G f.362r (inter)*]

418. (inter) [**spine**] scilicet dorsi [*A f.226r (inter); C f.208r (inter); G f.362r (inter)*]

419. (inter) [**ex ea**] scilicet parte cerebri nervosa [*Similar to C f.208r (inter); G f.362r (inter)*]

420. (l outer) [**paria nervorum**] Et intelligatur divisim ita quod singula paria nervorum

transseant[sic] ad singules nodos spine dorsi, et sic innuit ... ... nervorum. [*G f.362r (l marg)*][29]

421. (inter) [**alphetar**] idest ... nodum ipsius spine dorsi [*F f.216v (l inner)*]

422. (inter) [**alaadal**] scilicet alfadar vel alaphar

423. (inter) [**caro**] scilicet caro musculosa

424. (l inner) [**venis**] scilicet deferentibus spiritum vitalem qui continuat spiritum animalem delatum in nervis [*B f.278v (inter)*]

425. (inter) [**per quam**] carnem venis commixtam

426. (inter) [**per hoc**] idest per huius delationem spiritus ad hanc carnem [*Similar C f.208r (inter); similar to G f.362r (inter)*]

427. (inter) [**cuius rei**] sensibile

428. (inter) [**cuius rei**] <u>cuius rei</u> scilicet quod spiritus animalis sic delatus in nervis sit causa motus. [*B f.287v (inter); similar to C f.208r (l marg); G no.268*]

429. (l inner) [**hiis nerviis**] deferentibus spiritum animalem ad nodos ipsius dorsi et ad carnem predictam nervis commixtam. [*C f.208r (l marg); found partly in F f.216v (inter); G f.362r (l marg)*]

430. (inter) [**aliquod inpedimentum**] naturale et causale

431. (inter) [**per incisionem**] alicuius nervi

432. (inter) [**vel vulnus**] scilicet acceptum ... nervum

433. (r marg) [**clausi fuerint**] scilicet per inflationem vel opilationem ipsius vulneris aut per coagulationem grossorum humorum. [*Found in part B f.287v (inter); similar to C f.208r (l marg); similar to F f.216v (r marg); shorter version found in G f.362r (r inner)*]

434. (inter) [**qui**] decursus

435. (inter) [**in eo**] nervo [*F f.216v (inter)*]

436. (inter) [**cui**] scilicet membro

437. (inter) [**immittebatur**] scilicet prius ...

438. (inter) [**per hoc fit**] idest talis debilitatem motus membri

439. (inter) [**quod passus**] scilicet inpedimentum [*A f.226r (inter); F f.216v (inter); G f.362r (inter)*]

440. (inter) [**manus**] alicuius contracti, quoad summam intrinsecam quoad summam extrinsecam

441. (l inner) [**sanas et integras**] vel sanas et integras scilicet superficialiter

442. (r inner) [**sentit**] quia nichil advenit ei de spiritu ut accidit in paraleticis

443. (inter) [**sentit**] scilicet manus

444. (inter) [**infirmitates**] inpedientes decursus spiritus in nervis [*B f.287v (inter); F f.217r (inter)*]

445. (inter) [**decursus nervorum**] per quos fuerit huius spiritus animalis

446. (inter) [**clausuras**] scilicet ..as per eas predictas ut per coagulationem malorum humorum. [*B f.279r (inter); F f.217r (r inner)*]

447. (inter) [**mensuram**] idest debitum ...

448. (l outer) [**curationis**] secundum quod dicitur alibi quod ab egritudine potest fieri. [*B f.279r (r inner); G f.362r (l inner)*]. <transitio> nisi egritudo per temporis diurnitatem et in naturam uniuscuiusque membri fuerit transmutata. [*A f.227v (l inner); C f.208v (l inner); whole gloss similar to F f.217r (l marg)*]

449. (inter) [**pondus**] sicut accidit in se..

450. (l inner) [**fortasse**] Ita dictum est quod inpedimentum accidit spiritui qui est in posteriori parte cerebri fortasse.

451. (inter) [**omnibus ventriculis**] ipsius cerebri

452. (r marg) [**ventriculis**] Idest spiritui existenti in priori ventriculo ... et posteriori et per communes sensui et motui et intellectioni.

453. (inter) [**quibusdam**] scilicet accidit

454. (inter) [**ex mala**] scilicet ipsius vel illorum ventriculorum [*G f.362v (inter) but shorter gloss*]

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455. (inter) [**malorum vaporum**] scilicet pervenientum ex indigestione stomachi [*B f.279r (inter) in part; found partly in G f.362v (inter)*]

456. (inter) [**propter hoc**] idest propter tale inpedimentum

457. (inter) [**accus**] idest motus vel sensus [*C f.208v (inter); similar to G f.362v (inter)*]

458. (inter) [**membri**] ad quod diriguntur nervi

459. (inter) [**ventriculis**] scilicet cerebri [*B f.279r (inter)*]

460. (inter) [**aliquod impedimentum**] scilicet secundum decursus ad membra [*Similar to C f.208v (inter)*]

461. (inter) [**corruptionem**] scilicet per diminutionem spiritus

462 (r inner) [**corruptionem**] scilicet aliquam sui ipsius in se. [*C f.208r (inter)*]

463. (inter) [**sensuum**] idest operationum sensuum [*G f.362v (inter)*]

464. (inter) [**accidit**] scilicet quod passus est inpedimentum spiritus [*Similar to C f.208v (l inner); G f.362v (inter)*]

465. (r inner) [**balneum**] Nota quod balnei calor post multam moram in eo intransit per poros corporis et ascendit ad cerebrum prohibens spiritum descendere et ideo obscurantur oculi. [*A f.227v (l outer)*]

466. (inter) [**moram**] superfluam [*C f.208v (inter); G f.362v (inter)*]

467. (l marg) [**obscurantur**] ... in balneo facientis ... fumi per quos obscurantur ... nervi ministrantes instrumentis videndi [*Some similarity to C f.208v (r marg); G f.362v (r marg)*][30]

468. (r outer) [**oculi**] quia vapores calidi ingredientes per poros corporis et ascendentes ad cerebrum impellunt spiritum animalem nitentem transsire ad oculos et prohibent ipsum transsire; vel quia calidi vapores ascendentes ad summa oculi que aqua est et modo cristalli congelata faciunt illam summam defluere et ita oculum obscurare: et hoc est causa qualiter colera rubea maxime obscurat oculos.

469. (inter) [**in quo excitetur**] idest dominatur

470. (inter) [**colera rubea**] ad summam nigre

471. (r inner) [**colera rubea**] quia huiusmodi colera multum evaporat propter eius caliditatem [*C f.208v (l inner); similar to G f.362v (r marg)*]

472. (inter) [**et eius**] colere rubee

473. (inter) [**ad eius**] scilicet ad partem anteriorem capitis propter ... colere

474. (inter) [**fuerit**] ascendentes a colera rubea

475. (inter) [**spiritui**] animali [*G f.362v (inter)*]

476. (inter) [**in eius**] scilicet capitis [*G f.362v (inter)*]

477. (inter) [**et similter**] sicut accidit in balneo [*G f.362v (inter)*]

478. (r inner) [**et similter**] et similiter scilicet sicut accidit in balneo visui

479. (inter) [**accidit**] inpedimentum

480. (inter) [**ceteros**] ut gustum tactum et olfactum

481. (l marg) [**verbi gratia**] <non so>lum accidit impedimentum accui sensus accui intellectus verbi gratia [*B f.279r (r inner) in part; similar to G f.362v (l inner)*]

482. (inter) [**inpedimentum**] spiritus

483. (inter) [**cerebri media**] ubi facit ratio

484. (inter) [**et cetere**] idest anterior et posterior

485. (inter) [**cogitatio**] que sunt actiones sive operationes rationis que viget in parte cerebri media.

486. (l marg) [**remanent**] ... suarum operationum propter incolumes anterioris partis cerebri et posterioris

487. (inter) [**et motus**] vigent in parte anteriori qui vigent in parte posteriori

488. (inter) [**equales**] Idest debiti et proportionales [*B f.279r (inter)*]

489. (l marg) [**ut**] ..datur cognitio et cetera ut

490. (inter) [**melancolica**] quod ibi inpeditur et conturbatur ratio

491. (r inner) [**melancolica**] et dicitur melancolica quia causatur ab humoribus melancolicis ad primam partem cerebri ascendentibus. [*A f.227r (r inner)*]

492. (inter) [**infirmitate**] melancolica passio

493. (inter) [**commixto**] spiritus cum malis humoribus

494. (inter) [**destructio cogitatis**] per aerem commixtionem spiritus

495. (inter) [**erunt**] ut sensus et intellectus vel ipsis et qui vigent in media parte cerebri et anteriori

496. (inter) [**equales et recti**] idest bene se habentes

497. (inter) [**in duobus**] scilicet posteriori et medio [*A f.227r (inter)*]

498. (inter) [**occupavit**] illud inpedimentum [*F f.217r (inter)*]

499. (inter) [**cogitatione**] respectu partis medie [*part of B f.279r (inter)*]

500. (inter) [**in sensu**] respectu partis anterioris [*B f.279r (inter); G f.362v (inter)*]

501. (inter) [**atque motu**] respectu partis posterioris [*B f.279r (inter); G f.362v (inter)*]

502. (inter) [**caducis**] idest pacientibus morbum caducum [*A f.227r (r inner); B f.279r (inter); G f.362v (l inner)*]

503. (r inner) [**similibus hiis**] ut qui subito moriuntur, vel epilenticis et paralecticis omnium spirituum inpedimentum pacientibus [*G f.362v (inter)*]

504. (r inner) [**per hoc**] hic recapitulat ea que determinata sunt de spiritu animali

505. (inter) [**ventriculis**] cerebri [*A f.227r (inter)*]

506. (inter) [**operatur**] et hic in illa parte <u>ex ventriculo et cetera</u>

507. (inter) [**et cum hiis**] particularibus sensibus [*G f.363r (inter)*]

508. (inter) [**cogitationem**] et hic in illa parte <u>intellectus et cogitatio et cetera</u>

509. (inter) [**memoriam**] et hic in illa parte <u>cerebrum vero dividitur</u>

510. (r marg) [**motum**] et hic in illa parte <u>procedit quoque</u>.

511. (inter) [**hiis omnibus**] dictis generaliter de spiritu

512. (r marg) [**duo spiritus**] hic recapitulat omnia que determinata sunt de spiritu vitali et

animali

513. (inter) [**vitalis**] spiritus vitalis

514. (inter) [**est aer**] spirato [*Longer gloss in A f.227r (inter)*]

515. (inter) [**et eius**] scilicet spiritus vitalis [*A f.227r (inter)*]

516. (inter) [**per pulsus**] idest per venas pulsatiles [*A f.227r (inter); similar to G f.363r (inter)*]

517. (inter) [**ad reliquum**] idest ad reliquas partes corporis [*A f.227r (inter); B f.279v (inter); F 217v (inter); G f.363r (inter)*]

518. (inter) [**operatur**] scilicet spiritus vitalis [*Similar to G f.363r (inter)*]

519. (r inner) [**vitam**] tanquam instrumentum

520. (inter) [**alter**] spiritus [*Longer gloss in A f.227r (inter)*]

521. (inter) [**qui**] spiritus [*A f.227r (inter); G f.363r (inter)*]

522. (inter) [**cuius**] spiritus animalis [*A f.227r (inter); G f.363r (inter)*]

523. (inter) [**spiritus vitalis**] spiritus animalis immediata sed non prima ex corde

524. (inter) [**providentiam**] et motum [*G f.363r (inter)*]

525. (inter) [**ex eo**] cerebro spiritus animalis

526. (inter) [**membra**] corporis [*A f.227r (inter)*]

527. (inter) [**operetur**] in eis [*A f.227r (inter)*]

528. (r inner) [**Narrare**] <u>quantum ad eius ortum et operationes</u> Ita dictum est de spiritu dicendum est nunc de anima <u>autem</u> pro sed

529. (l marg) [**Narrare**] <?anima> incorporea est ... quia omnino ab extrinseca ... [*B f.279v (l inner) in part*] <u>et difficile</u> et scilicet maxime de anima humana propter quam est intentio

principalis. ... anime diffinitionem est de ea ab ... differencie[31]

530. (r outer) [**Narrare**] prima pars de anima.

531. (inter) [**anima**] et de eius essentia

532. (r outer) [**certissime**] certissime Idest secundum certitudinem et veram cognitionem [*A f.227r (inter); E f.205rb (inter); longer gloss found in G f.363r (r marg)*]

533. (inter) [**difficile**] scilicet quod valde difficile est et cetera

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534. (inter) [**bendidis**] idest empedocles

535. (inter) [**et eorum**] philosophorum [*A f.228v (inter)*]

536. (inter) [**post eos**] philosophos

537. (inter) [**quibus**] diffinitionibus [*A f.228v (inter)*]

538. (r inner) [**expositione**] scilicet diffinitionum utriusque scilicet platonis et aristotelis

539. (l inner) [**probabilibus**] scilicet ad ostendendum diffinitiones inpositas anime a platone ab aristotele esse veras et bene assignatas.

540. (inter) [**sequatur**] scilicet diffinitiones et expositiones earum

541. (inter) [**virtutum**] idest virtutibus anime solum

542. (r marg) [**et hoc**] Idest explanare diffinitiones et narrare virtutes anime pro toto idest post predicta narrabo virtutes anime

543. (inter) [**inter spiritum et anime**] scilicet declarato

544. (l outer) [**diffinit**] Nota quod calor per se substanciam non movet nec aliquod accidens immo contrarium accidens movet suum contrarium in subiecto et illud destruit, et si ex hoc

accidat aliqua mutatio substancie, hoc est per accidens, unde intelligit istam propositionem, qui... substanciam et cetera in hoc sensu scilicet quod per se substanciam substancia est; et causa veritatis istius propositionis est que omne agens sive movens philosophice movet mediante contraritate sive fuerit actio ?unita sive ?equi.. quod sic potest patere. Uter corporum supra celestium diff..er dicitur mediante sunt corporum superiorum in omnes partes universi que ab omnibus animatis et inanimatis participatur et in eis incorporatur recipiens quadam dispositionem contrariam dispositi qua habent<.> In sua causa cum igitur alia stella lumen diffundat ad locum aliquem cum sua virtute illa ultima stelle nec sive virtuti incorporate adveniens eam movet secundum quod est in qua dispositione et est causa nove actionis ita quod resultat nova et nova secundum diversum temperis processum.

545. (inter) [**movens corpus**] scilicet phisicum organicum [*A f.228v (inter)*]

546. (inter) [**motu**] locali processivo

547. (inter) [**perfectio**] Idest accus [*G f.363v (inter)*]

548. (r marg page top) [**perfectio**] Intellige quod per hoc quod dicit perfectio dat intelligere accum primum quia cum accus et forma idem hoc non est verum de..tu quocumque<.> Sed de accu primo et immediato eius est forma et perfectio. Item per hoc quod dicit agentis et viventis potentialiter sufficienter dat intelligere corpus phisicum organicum quod solum corpus est corpus phisicum et etiam solum corpus est organicum quod est vivens potentientialiter

549. (l inner) [**Nunc exponamus**] hic declarat predictas diffinitiones scilicet vitam habentis in potentia

550. (inter) [**incipiamus**] et sic dat modum agendi

551. (inter) **[immutabile]** mutabile cum secundum suas quantitates

552. (inter) **[sed anima]** ... ... sua debet ratione

553. (l outer) **[recipit virtutes]** Nota quod sicut vult aristoteles in primo de anima omnes operationes sunt ipsius coniuncti et nulla apropriata ipsi soli anime quia nec intelligere sicut dicit ibidem, semper dicendum est de passionibus coniunctibus ad operationes bonas vel malas et etiam de transmutationibus factis secundum illas passiones que nulla illarum est soli anime apropriata potest cum alia illarum ... coniuncto in esse, ratione cum anime, consideratio ergo ipsam animam in se illo modo debetur ei alteratio nec transmutatio ut patet in ...tata que si sic virtuosa nec erit ei ... alteratio, unde cum hic dicitur quod transmutatur de virtute et vitia intelligendum est transmutatione qua per se est ipsius coniuncti ratione tum anime et de ipso opposito est solum proprium dicere que est virtuosum et vitiosum. [*B f.279v (l outer)*][32]

554. (l inner) **[recipit virtutes]** Nota quod anima dicitur recipere virtutes et vitia non quia sola recipiat sed quia coniunctum ratione anime. [*A f.228v (r inner); E f.205va (l inner); F f.217v (r marg); G f.363v (r marg)*]

555. (inter) **[et vicia]** vel sciencias

556. (r marg) **[Item dicamus quicquid]** si ita est quod quicquid movet substancia est substancia non ergo quicquid movet corpus est corpus ratio huius est quia movens nobilius est moto. Universaliter autem nichil ... substancia est nobilior substancia sed non corpus potest e<sse> nobilius quam corpus quare etc quicquid [*F f.217v (r marg); G f.363v (l inner)*]

557. (l inner) **[movet]** scilicet motu locali vel motu generali

558. (inter) [**movet**] quia movens nobilius est moto

559. (l inner) [**anima igitur**] hic probat quinque rationibus quod anima est substancia incorporea.

560. (inter) [**patentibus**] idest probabilibus

561. (inter) [**et dicamus**] prima ratio [*A f.228v (inter)*]

562. (inter) [**uniuscuiusque**] prima pars maioris

563. (inter) [**perceptibiles**] scilicet sensu corpore complete vel incomplete

564. (inter) [**et cuius**] secunda pars maioris

565. (l inner) [**qualitates**] omnes enim qualitates corporis aut prime qualitates que sunt causales aut ex primis et sic sunt sensibiles non percipiuntur scilicet non sunt apte nate percipiantur licet actu non fueruint percepte propter defectum sensus in senectute sicut accidit in qualibus ...

566. (r marg) [**a corporeo sensu**] per hoc patet quod cum celum sit corporeum et si sola luce sit comprehensibile quod lux est qualitas ut indicitur a sensu corporeo. [*E f.205va (l inner); F f.217v (l inner)*]

567. (inter) [**insensibiles**] sensu corporeo [*E f.205va (inter); longer gloss found in G f.363v (inter)*]

568. (inter) [**igitur est**] scilicet substancia

569. (r marg) [**subiacet omnibus**] Instancia videtur in celo quod soli visu. aut igitur de inferioribus loquitur aut superioribus ponebat pars qualitates existere. [*F f.217v (page bottom); G f.363v (l outer)*]

570. (inter) [**sensibus**] Ita quod percipitur ab omni sensu vel s.. ab alico

571. (inter) [**Item omne**] tercia ratio

572. (inter) [**aut est**] scilicet anima

573. (r marg) [**inanimatum corpus**] quia si anima esset inanimata sequeretur quod inanimata esset nobilius animata et hoc cum anima fit nobilior corpore; vel sic secundum quod inanimata est differencia ipsius sic etiam videtur quod anima non esset causa animati si simpliciter negaretur animata ab ea.

574. (l outer) [**anima inanimata**] Nota quod animatum dicitur dupliciter: formaliter scilicet et sic est idem quod habens animam partem sui et sic non est anima animata: eff...ciem et est dicendum quod potens animare et sic est anima animata, et forte hoc modo intelligendum est quod dicitur in primo celi et mundi quod celum est animatum hec est potens animare et dicendo possunt ibi multe obiectiones solui et sic dicitur quod piper est calidum.

575. (l inner) [**anima inanimata**] Nota quod anima est animata efficienter corpus formaliter est animatum.

576. (inter) [**quod sit animata**] scilicet anima scilicet corpus animatum

577. (inter) [**de anima**] scilicet antecedente et ... prim.. querens utrum ista anima anime <u>sit</u> et cetera

578. (inter) [**corpus**] animatum [*G f.363v (inter)*]

579. (inter) [**ascendit hoc**] si anima anime sic animata

580. (l inner) [**igitur anima**] Cum non possit esse corpus anima cum nec inanimatum

581. (inter) [**et item**] quarto ratio

582. (inter) [**corpus subtile**] quod veri.. ponere [*E f.205vb (inter)*]

583. (inter) [**aer**] Idest antecedens aer inspiratus ... [*B f.280r (inter)*]

584. (l inner) [**corpus dispersus**] per hoc videtur quod si spiritus sit corpus subtile quod est aer vel ignis quod est inconveniens aut non est sic de spiritu et anima quia anima est simplitior quam spiritus. [*F f.218r (r inner); G f.364r (r outer)*]

585. (inter) [**si fuerit**] scilicet quod anima sit talis spiritus et ignis

586. (inter) [**ille spiritus**] qui est anima

587. (r marg) [**propriam virtutem**] qua differat ab alio igne vel ab alio aere que non est anima

588. (l inner) [**quia**] scilicet predicto quod anima sit ignis vel talis spiritus tunc

589. (inter) [**anime propria**] scilicet aere vel igni qui ponitur ... anima

590. (inter) [**aer**] qui non sit anima

591. (inter) [**omnis**] idest totus [*G f.364r (r inner)*]

592. (inter) [**ignis anima**] scilicet omnis

593. (inter) [**ignis anima**] quod est inconveniens

594. (inter) [**sint ei**] scilicet anime vel igni

595. (inter) [**propria species**] qua differat ab alio igne

596. (l outer) [**species anima**] Et quesitur adhuc de illa anima utrum sit corpus et ... processus infinitum vel sic et cum species rerum non sit corpus anima non erit corpus [*G f.364r (r inner)*]

597. (inter) [**Item**] quinta ratio

598. (l inner) [**compositum**] sed nec est simplex nec conpositum ergo et cetera

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599. (inter) [**et si fuerit**] anima

600. (inter) [**idest absque**] idest absque forma completiva

601. (r inner) [**fortitudine**] et vocat fortitudinem formam completivam quia dat complementum rei et est principium sue virtutis et fortitudinis.[33]

602. (inter) [**propria specie**] scilicet elementum positum esse anima

603. (inter) [**participatur ei**] idest elemento eiusdem speciei

604. (inter) [**quod fuerit**] idest quelibet pars esset anima

605. (inter) [**omnis ignis**] idest quelibet pars ignis

606. (inter) [**et si fuerit**] scilicet anima [*E f.206ra (inter); F f.218r (inter)*]

607. (inter) [**elementis**] ut aqua et terra

608. (l marg) [**si fuerit**] anima sit corpus simplex

609. (inter) [**erit animatum**] quod est inpossibile

610. (inter) [**si fuerit**] anima [*E f.206ra (inter)*]

611. (inter) [**aer**] qui inspirat aera[sic]

612. (inter) [**pulsus**] Idest vena pulsatilis [*A f.229v (inter); F f.218r (inter)*]

613. (l marg) [**inflatus aer**] ..ma ista animata quia continent aerem ... anima ut dicit cavillator, et ipsum elementum erit animatum quod est incoveniens.

614. (r inner) [**corpus animatum**] si omne continens elementum sit animatum quia nichil existens actu in aliquo genere forma aliter existentis actu in eodem formam enim et materia fit circum simpliciter. Sed ex duobus existentibus in accu in eodem genere non fit circum ergo si anima sit corporis et fuerit forma alicui erit forma non corporis. Sed est forma corporis animati ergo corpus animatum erit non corpus.

615. (r inner) [**corpus animatum**] quia nullius corporis accus est corpus et anima est corporis accus contrario anima non est corpus, et ita si anima fuerit corpus animatum, corpus animatum non erit corpus.

616. (l marg) [**et quia iam**] <in>tellige quod est sita incorporea supponitur prius quod movet corpus.

617. (inter) [**modis movet**] scilicet anima

618. (inter) [**motum sui**] et sic motore mobili

619. (inter) [**cum non**] idest a motore mobili

620. (inter) [**et hoc fit**] scilicet quod movet et non movetur [*A no.229v (inter); similar to B f.280v (inter)*]

621. (inter) [**quia**] primus motus

622. (inter) [**erit**] scilicet motus

623. (inter) [**a quo**] desiderio

624. (inter) [**amator**] scilicet desiderans [*Similar to B f.280v (inter)*]

625. (inter) [**aut per odium**] secundus motus scilicet est movens non motum [*Shorter gloss in G f.364v (inter)*]

626. (inter) [**ab inimico**] scilicet non moto [*F f.218v (inter)*]

627. (inter) [**aut per actum**] tertius motus scilicet est movens non motum

628. (r outer) [**quemadmodum lapis a pondere**] et hoc modo videtur corpus moveri ab anima sed non est quia anima est accus naturalis corporis et movet corpus sed non est ita quia non est actio in gravum a pondere nisi naturalis et ideo dicitur accus naturalis; actio autem anime est voluntaria et ideo non est accus naturalis omnis et ideo anima pocius movet

sicut magistrum in magistro quam sicut lapis a ponderositate sua. [*F f.218v (r marg); shorter gloss found in G f.364v (l outer)*]

629. (inter) [**a pondere**] Idest a sua gravitate movetur [*Similar to A f.229v (inter); similar to E f.206ra (inter); similar to G f.364v (inter)*]

630. (l marg) [**sit immobile**] ... accidens et accidens non movetur per se

631. (inter) [**vel quia**] quod motus sicut movens non motum

632. (inter) [**magisterium**] Idest sciencia motiva magistri

633. (inter) [**sit anima movet corpus**] sicut illud quod est occasio vel causa scilicet anima

634. (inter) [**eius**] corporis

635. (inter) [**et opus**] Idest motum accidentalem

636. (inter) [**motionem**] idest motum naturalem

637. (inter) [**ipsa**] anima

638. (inter) [**non movetur**] scilicet per se [*B f.280v (inter); longer gloss in E f.206rb (r inner); G f.364v (inter)*]

639. (inter) [**quod ipsa**] anima

640. (l marg) [**est incorporea**] ... indivisibilis et impartibilis, omne autem movetur partim est in eo a quo et partim in eo ad quem sed sicut probat aristoteles in <sext>o physicorum. [*A f.229v (r inner); B f.280v (inter); similar to E f.206rb (r inner); similar to F f.218v (l inner); G f.364v (inter-r marg)*]

641. (inter) [**ex secunda speciei**] que est movens et non motum

642. (inter) [**movet corpus**] scilicet anima

643. (inter) [**cum ipsa**] scilicet anima [*A f.229v (inter)*]

644. (inter) [**movet enim**] scilicet anima corpus [*E f.206rb (inter)*]

645. (inter) [**ipsa**] anima

646. (inter) [**eius**] corporis [*F f.218v (inter)*]

647. (inter) [**per animam**] scilicet alico modo id..

648. (inter) [**per eam**] scilicet anima [*A f.229r (inter)*]

649. (inter) [**quia operatur**] secundum artem suam

650. (r outer) [**per motum eius**] Intelligendum est hoc sit quod ipsa non movetur alico modo per se que ad modum et corpus, moventibus tum nobis moventur ea que in nobis sunt per accidens et sic movetur anima per motum corporis sicut nauta per motum navis.

651. (inter) [**et opus**] debitum

652. (inter) [**motionem**] idest per virtutem suam motivam [*A f.229r (inter); B f.280v (inter)*]

653. (inter) [**quod**] anima

654. (l marg) [**incorporea**] non habens partem et partem ad minus quantitatem [*A f.229r (l inner)*]

655. (inter) [**partium eius**] diffinitionis

656. (inter) [**interpretationem**] idest expositionem

657. (inter) [**diffinitionis**] data de anima

658. (l marg) [**viventis potentialiter**] ... anima est perfectio corporis acc.. sive viventis quod potentialiter se habet ad vitam

659. (page bottom) [..]

movens -... dicit plaustrum per motum boum

-... ...-sciendum amatum movet amando

-sciendum ... ...

-sciendum ... gravium et levium movet

ipsa

-sciendum magisterium ... magistro movet disciplinam discipulo[34]

f.385v

660. (inter) [**perfectio corporis**] idest accus

661. (inter) [**corporis naturalis**] scilicet phisici

662. (inter) [**intrumentalis**] idest organici s.. ... inpotencia. [*Shorter gloss found in G f.365r (inter)*]

663. (r marg) [**redeamus**] hic intendit declarare diffinitionem aristotelis et primo ultimam particulam.

664. (l inner) [**quod potentialiter**] scilicet ut ipsum exponatur sic ostenditur datur qua anima sit perfectio et cetera [*G f.365r (l marg)*]

665. (inter) [**sunt potentialiter**] et perfecte

666. (inter) [**quamdam perfectem**] et accu

667. (inter) [**provenerint res**] que sunt potencia

668. (inter) [**ad effectum**] scilicet sue potencie.

669. (inter) [**perfectionem**] sue forme [*B f.281r (inter)*]

670. (inter) [**designant**] scilicet per receptionem sue speciei.

671. (inter) [**perfectio enim eius est**] scilicet animalis existentis in potencia [*Similar to C f.210r (r inner)*]

672. (inter) **[receptio sue speciei]** scilicet que dat ei complementum

673. (inter) **[anima perfectio]** scilicet in animali quia per receptionem anime est animal ab quo non effectum.

674. (inter) **[cum animatum sint]** scilicet animal

675. (l inner) **[per effectum]** scilicet per receptionem anime actualiter

676. (l outer) **[dicitur forte]** forte dicit quod effectus dicitur dupliciter est enim effectens esset hec est prima perfectio, et est effectens operis et est secunda perfectio, quia igitur effectens magis se ligat ad opus et animalis per receptionem speciei ... hunc effectum ipsius esse. Imo dicit quod forte dicitur animal perfectum. [*B f.281r (l inner)*]

677. (inter) **[forte perfectum]** per receptionem sue speciei que anima est [*Similar to G f.365r (l marg)*]

678. (inter) **[et eius perfectio]** eius scilicet animalis

679. (inter) **[sit animatum]** per suam speciem [*Longer gloss in E f.206va (l inner); G f.365r (r inner)*]

680. (inter) **[hoc quod diximus]** quod animal est perfectum per receptionem sue speciei [*Similar to E f.206va (l inner)*]

681. (inter) **[sit species]** scilicet forma [*E f.206va (inter)*]

682. (inter) **[animalis eiusdem]** cuius est species

683. (r marg) **[perfectio rei est receptio]** quia in receptione illius est aliud per effectum et designat perfectionem

684. (inter) **[sue speciei]** idest forme [*F f.218v (inter) longer gloss*]

685. (inter) **[sit species]** scilicet perfectio anima et forma

686. (inter) [**vocamus perfectionem**] formam

687. (inter) [**ex eis**] scilicet modis ... [*B f.281r (inter)*]

688. (inter) [**perfectio in homine**] ratione anime [*E f.206va (inter)*]

689. (inter) [**sapiencia**] idest cognitio

690. (l inner) [**sapiencia**] vel idest est ... quo potest operari cum vultum [*B f.281r (inter)*]

691. (inter) [**vero perfectio est**] in homine in quantum sapiens

692. (inter) [**studere**] scilicet operari secundum illam sciencia

693. (r marg) [**scienciam medicine**] mediante qua potest operari cum vult

694. (inter) [**vero ceperit operari**] medicus [*C f.221r (inter) reads scilicet medici*]

695. (inter) [**dicitur secunda perfectio**] scilicet medici

696. (inter) [**perfectio prima**] scilicet animati et hoc ostendit quia

697. (l inner) [**caret sensu**] scilicet accuali operatione sensus cum sompnus sit vinculum et immobilitatio omnium sensuum ... ut dicit aristoteles in libro de sompno et vigilia [*Shorter gloss found in A f.230v (inter); shorter gloss found in G f.365v l outer)*]

698. (inter) [**tamen anima sensibilis**] tanquam eius perfectio prima [*E f.206va (inter); G f.365v (inter)*]

699. (l inner) [**et omnis perfectio**] sic ostendit quod anima est perfectio corporis naturalis.

700. (inter) [**perfectio alicuius**] sed anima est perfectio et sensus

701. (l outer) [**perfectio corporis**] Cum sit perfectio alicuius rei et non rei incorporee quia sicut corpus non est perfectio corporis; cum igitur anima sit non corpus ut ostensum est ipsa non est perfectio substancie incorporee sed corporee.[*Vaguely similar to G f.365v (l inner)*]

702. (l inner) [**species naturalis**] scilicet per operationem nature educca [*G f.365v (r marg)*]

703. (inter) [**naturalis arbores**] que sunt mixta

704. (inter) [**Ignis quoque**] que sunt simplicia [*Similar to C f.210v (l inner)*]

705. (inter) [**quicquid habet motum**] idest principium motus naturalis [*Similar to C f.210v (inter)*]

706. (inter) [**naturalem ut semetipso**] est corpus naturale in quibus tali est forma naturalis [*Shorter gloss in E f.206vb (inter); shorter gloss in G f.365v (inter)*]

707. (inter) [**quedam**] scilicet corpora [*A f.230v (inter); G f.365v (inter)*]

708. (inter) [**adquiritur species**] scilicet forma [*A f.230v (inter); B f.281r (inter); C f.210v (inter); E f.206vb (inter); G f.365v (inter)*]

709. (inter) [**per magisterium**] idest per artificium [*A f.230v (inter); B f.281r (inter); C f.210r (inter); longer gloss found in E f.206vb (r inner)*]

710. (inter) [**ut hostium et**] hanc formam per artificium

711. (inter) [**ergo est species**] et perfectio [*F f.219r (inter)*]

712. (inter) [**naturalis**] et non artificialis

713. (inter) [**quia corpus**] quod ... perficitur per animam

714. (r marg) [**ex actibus**] Idest per accum artificialem sed ex accibus naturalibus

715. (inter) [**quoque species**] vel perfectio

716. (inter) [**naturalis**] scilicet corporis

717. (inter) [**a specie**] vel perfectione vel magisterii que corporis artificialis

718. (inter) [**naturalis est**] idest corporis

719. (inter) [**species magisterii**] idest corporis artificialis [*G f.365v (inter)*]

720. (inter) [**que est species**] et perfectio

721. (inter-r marg) [**corporis naturalis**] et non artificialis cum ergo anima sit substancia ut probatum est supra est species et perfectio naturalis corporis quia alter esse substancia sensus et perfectio accidentis.

722. (l inner) [**modi ergo corporis**] hic ostendit quod anima est perfectio corporis instrumentalis [*Similar to F f.219r (l marg)*]

723. (inter) [**sunt quedam**] corpora naturalia [*A f.230r (inter); C f.210v (inter)*]

724. (inter) [**simplicia**] scilicet corpora

725. (inter) [**simplicia**] scilicet corpora sunt

726. (inter) [**composita**] scilicet corpora sunt

727. (l outer) [**corporis simplicis**] quia anima est substancia composita in genere suo et ita erit perfectio corporis compositi in genere corporum vel hoc est quoque corporis simplicis est unus motus naturalis anima autem movit multis motibus

728. (inter) [**naturalis**] scilicet est anima perfectio

729. (inter) [**sed compositi**] corporis

730. (inter) [**habet animam**] ad sui perfectionem

731. (r marg) [**est convertibile**] scilicet per generationem vel per augmentionem

732. (inter) [**et dissolubile**] scilicet corruptionem naturalis per dissolutionem

733. (inter) [**necesse est ei cibus**] scilicet tali corpori

734. (inter) [**quo**] scilicet cibo [*Longer gloss in A f.230r (inter)*]

735. (inter) [**recuperare**] scilicet restaurare [*Similar to G f.365v (inter)*]

736. (inter) [**quod dissolutum**] scilicet per deperditum [*Similar to B f.281v (inter); similar to E f.206vb (inter)*]

737. (inter) [**ab eo**] vivente

738. (inter) [**et quod**] scilicet cibus ei necessarius

739. (page bottom)

Ecce duplex est perfectio -prima

-et secunda.

Ecce -si dormit animalis

-caret sensu.

Ecce -quod species corporis

-artificialis est accidens

740. (page bottom) [..] quedam ... in potencia et in perfectam et fuit perfectam et in accu per complementum sue species

f.386r

741. (l marg) [**incrementum**] ... ... ut in iuventute vel potest incrementum quia corpus est in continua ... et sic diminuitur et adveni.. ... restauratur et sic suscipit ...[35]

742. (r inner) [**diversis instrumentis**] ergo a primo animatum indiget instrumens et ita anima est perfectio corporis instrumentalis

743. (l marg) [**instrumentis**] ..latur in nutrimentum

744. (inter) [**ex quibus**] instrumens

745. (inter) [**quedam**] instrumenta

746. (inter) [**sunt ei necessaria**] corpori viventis [*E f.206vb (inter); Longer gloss found in G f.365v (inter)*]

747. (inter) [**deferant eum**] scilicet cibum [*A f.230r (inter); G f.366r (inter)*]

748. (inter) [**ad corpus**] idest restaurandum deperditum.

749. (inter) [**reficiendum eum**] scilicet cibum [*A f.230r (inter); C f.210v (inter); G f.366r (inter)*]

750. (inter) [**et penetrare**] scilicet in stomacum et a stomaco in singula membra corporis.

751. (inter) [**guttur**] scilicet sunt instrumenta in quibus defertur cibum

752. (r inner) [**guttur et vene**] vel sic guttur per quo transsit[sic] cibus indigestus. vene per quas transsit cibus vel cuius digestus.[*A f.230r (l inner and inter); E f.206vb (r inner); G f.366r (l marg, r outer)*]

753. (inter) [**ac rami**] sunt instrumenta [*C f.210v (inter); longer gloss in G f.366r (inter)*]

754. (inter) [**quedam sunt necessaria**] instrumenta [*A f.230r (inter); C f.221r (inter); G f.366r (inter)*]

755. (inter) [**refectioni**] scilicet mediante virtute expulsioni [*G f.366r (inter)*]

756. (inter) [**ut abiciantur**] illa instrumenta [*Longer gloss found in C f.210v (inter)*]

757. (inter) [**ab eo**] corpore

758. (inter) [**in pori**] animalibus

759. (r outer) [**pori**] pori per quos exit sudor et per constrictionem expelluntur nocivam et per dilatationem attrahuntur conferencia. [*shorter gloss in A f.230r (inter); C f.210v (l inner); E f.207ra (l outer); G f.366r (l marg)*]

760. (inter) [**sive exitus**] scilicet per nodos

761. (inter) [**quoque instrumenta**] scilicet formis distincta [*B f.281v (inter)*]

762. (inter) [**in animalibus**] perfectis [*E f.207ra (inter); G f.366r (inter)*]

763. (inter) [**magnitudinem eorum**] animalium [*E f.207ra (inter); G f.366r (inter)*]

764. (inter) [**eorum operum**] in quibus operibus habundant animalia plantis [*E f.207ra (l inner); G f.366r (r outer)*]

765. (inter) [**vite et est**] secundum naturales [*E f.207ra (inter)*]

766. (r outer) [**cor et cerebrum**] Et notandum quod cerebrum est instrumentum vite non absolute sed in operatione ad sensum sine sensus inanimationem cor autem est instrumentum vite simpliter

767. (inter) [**cerebrum**] secundum medicos. [*E f.207ra (inter)*]

768. (inter) [**iungitur**] ut epar splen et sto<ma>cus

769. (inter) [**et si**] pro quia animal

770. (l marg) [**erunt nervi**] sunt instrumenta deferencia spiritum ad sensus ..um est.

771. (inter) [**fuerit mobile**] scilicet animal

772. (inter) [**mobile voluntarie**] de loco ad locum [*G f.366r (inter)*]

773. (inter) [**erunt nervi**] deferentes spiritum animalium

774. (inter) [**et alaadal**] similis cum hoc [*G f.366r (r marg)*]

775. (l marg) [**caro nervosa**] ... sit motus in singulis membris, dirigitur a collo ad spine dorsi. [*Shorter gloss found in E f.207ra (l inner); shorter gloss in G f.366r (inter)*]

776. (inter) [**si ita est**] scilicet sicut nunc dictum est in explanationem partium diffinitionis.

777. (inter) [**et decenter dicitur**] in explanatione partium diffinitionis

778. (inter) [**hec diffinitio**] anime

779. (r outer) [**hec diffinitio et universalis**] per hoc potest notari quod si anima sit in celo, non tum neccessaria est hanc diffinitionem ei commentore quia non neccessaria est tunc

quod anima sit eius perfectio prima sed secunda, nec etiam quod vivat potentialiter sed accidentaliter, potest etiam notari quod anima intellectiva separata a corpore non hanc diffinitionem hanc cum non sit accidens corporis.

780. (inter) [**habundans**] idest communis et plena [*In part B 281v (inter); shorter gloss in E f.207ra (inter)*]

781. (inter) [**Quod autem videtur**] prima diffinitio aristotelis [*Similar to A f.231v (inter)*]

782. (r inner) [**Quod autem videtur**] hic ponit subitationem et relinquit eam insolutam

783. (inter) [**corrumpere primam particulam**] diffinitionis hanc scilicet instrumentalis naturalis que non est simpliciter prima quia in hac particula [*Longer gloss in A f.231v (l inner)*]

784. (inter) [**eius ponere**] scilicet diffinitionis ...

785. (inter) [**viventis**] scilicet istam particulam

786. (inter) [**discordat ab alia**] quia videntur signare idem secundum rem

787. (inter) [**utrarumque**] scilicet prime et secunde [*C no.464*]

788. (inter) [**est una**] secundum rem [*E f.207ra (inter); G f.366r (inter)*]

789. (inter) [**potentialiter**] secundum hanc particulam in prima di.. aliam partem

790. (r inner) [..] ... dicitur ... ... diffinitio ab alia et quia in secunda diffinitione ponitur hec particula prior alia.[36]

791. (l marg) [**corpus ita esset**] in potencia vivens ita quod non organizatum [*Similar to E f.207ra (l inner); G f.366r (l marg)*]

792. (inter) [**anima**] in eo

793. (inter) [**recepiscet**] scilicet corpus

794. (inter) [**per hoc**] absque alio instrumento sed accidit in corporibus mixtis non organizatis quod tantum sunt in potencia ad recipiendum formas antequam accu recipiant.

795. (r outer) [**Sed volunt intelligi**] istam dubitationem non solvit sed istarum particularum possuimus intelligere ... scilicet quod per istam particulam instrumentalis corporis datur intelligi quedam discretio et distinctio instrumentorum sed per hoc quod dicit viventis potentialiter non; et sic addit una pars super aliam.

796. (inter) [**dixit viventis potentialiter**] scilicet per hanc particulam

797. (inter) [**ei cui**] corporis

798. (l marg) [**uti actibus vite**] est non est vita nisi per instrumenta operationibus vite deputata. [*Similar to B f.281v (inter); G f.366r (r inner)*]

799. (inter) [**significat**] secundum rem

800. (inter) [**significat**] hanc particulam

801. (inter) [**viventis potentialiter**] hec particula et ita videtur quod sua diffinitio sit ...

802. (inter) [**partis earum**] diffinitionis

803. (inter) [**partis earum**] diffinitionum

804. (r inner) [**nunc loquamur**] determinat de virtutibus anime.

805. (inter) [**de virtutibus**] idest potentis [*E f.207rb (inter)*]

806. (r outer) [**de virtutibus**] unde ponit effectum pro causa quia ... procedit a virtute

807. (inter) [**prime virtutes**] idest prime potencie

808. (inter) [**sunt ei**] scilicet anime

809. (r inner) [**fortitudine**] scilicet in suo esse substanciali secundum quod diffinitur in ultrimo quod potest ut huius alibi. [*Longer gloss in C f.211r (l inner); longer gloss in E*

f.207rb (r inner)]

810. (r inner) [**genera sunt tres**] scilicet sunt quasi tres virtutes generales anime. [*E f.207rb (inter); G f.366v (inter)*]

811. (l marg) [**placitum**] ... in..ere quod iste non sunt tres ... cum sint in uno sed magis proprie ... virtutes unius substancie secundum dicit augustinus[37]

812. (inter) [**anime**] et non respectu ipso

813. (l marg) [**cognitione**] cognitionem intellige providenciam cum tamen communiter dicatur cognitio que est de se ad providenciam cogitationem rationem sive intellectum [*A f.231v (l outer); some similarity with C f.211r (r inner); G f.366v (r marg)*]

f.386v.

814. (l inner) [**vocatur sementis**] idest principium seminis quia quoddammodo desci...tur cum semine.

815. (r marg) [**que alibi**] est in nobis communis cum arboribus et herbis atque animalibus et etiam sensibilis[38]

816. (inter) [**vocat vitalis**] quia facit vitam inanimatam

817. (inter) [**rationalis proprie**] quia convenit omni a soli et semper sicut formale principium. [*E f.207rb (r inner); G f.366v (l inner)*]

818. (inter) [**in est homini**] et soli

819. (l outer) [**nutrire idest reficere**] per refectionem possumus intelligere expulsionem eorum qui sunt nociva, plus quam vel quoddammodo reficitur, vel possumus per hoc quod est reficere intelligere augmentare et generare et hic oportet ad hoc quod hec sentencia sit

consona aristoteli in secundo de anima. [*B f.282r (r inner)*]

820. (inter) [**hoc**] scilicet opus

821. (inter) [**patet**] vel facit

822. (inter) [**que vocantur**] virtutes

823. (inter) [**que sunt**] virtutes

824. (inter) [**attractiva**] alimenti

825. (inter) [**retencia**] bo.. in ...[39]

826. (l inner) [**retencia**] vel recencia scilicet ... et ...[40]

827. (inter) [**digestiva**] ut fiat melius

828. (r marg) [**attractiva...expulsiva**] hee quatuor existent nutritere

829. (inter) [**expulsiva**] superflue defl...

830. (r marg) [**hoc opus**] non tamen secundum omnes dictas virtutes <ut> videtur quia expulsiva est propter superfluitatem cibi, in plantis autem non est superfluitas cibi quare in ipsis non est vis expulsiva nisi dicamus quod in hiis abicitur humor superfluis secundum quod dixit prius exitum esse plantis. [*A f.231r (l inner); G f.366v (l outer)*]

831. (inter) [**et animalibus**] scilicet brutis [*E f.207rb (inter)*]

832. (l inner) [**voluntarie**] Nota quod planta non dicitur animata proprie sed vegetata et hec rationaliter quia non habet animam sed partem partis anime. [*E f.207rb (r inner); G f.367r (r outer)*]

833. (inter) [**in omni animato**] perfectio et completo [*A f.231r (inter); similar to E f.207rb (inter); G f.367r (inter)*]

834. (inter) [**in animalibus**] et in homine

835. (l outer) **[hec opera proprie]** quia non conveniunt nisi homini sed tunc oportet s.... memoriam secundum quod est idem cum reminiscencia que tantum m... hominibus quamvis memoria con... dicta con... virtus[41]

836. (inter) **[que est inter eos]** spiritum et animam [*A f.231r (inter)*]

837. (inter) **[Dicamus]** prima differencia [*A f.231r (inter)*]

838. (inter) **[differencia inter eos]** scilicet spiritum et animam [*A f.231r (r inner)*]

839. (inter) **[et spiritus]** secunda differencia [*A f.231r (inter); C f.211v (inter)*]

840. (inter) **[conprehenditur a corpore]** conprehensione locali cum sit corpus

841. (inter) **[a corpore conprehendi]** scilicet localiter [*Longer gloss found in C f.211v (r outer)*]

842. (l inner) **[non potest]** continuetur v... et est ut forma sua vel est in eo natura forma et formato

843. (inter) **[et spiritus]** tercia differencia [*C f.211v (inter)*]

844. (l inner) **[a corpore perit]** idest dissolvitur in partes ex quibus s... cum est in corpore. vel perit scilicet quantum ad suas operationes.

845. (inter) **[vero anime]** scilicet ex..

846. (inter) **[pereunt]** a corpore

847. (inter) **[vero non perit]** pro sed ipsa

848. (inter) **[perit in se ipsa]** idest secundum suam substanciam [*Similar to G f.367r (inter)*]

849. (l outer) **[perit in se ipsa]** manet enim post separationem et hoc est intelligere dum de anima intellectiva que secundum aristotelem est separabilis a corpore sicut incorporale a corporali aut oportet ponere que similis cum rationali vel intellectiva separetur vegetativam

et sensitivam secundum substanciam. [*E f.207va (l inner); similar to G f.367r (r outer)*]

850. (inter) [**anima vero**] quarta differencia [*A f.231r (inter) reads quarta; C f.211v (inter)*]

851. (inter) [**operatur hoc absque**] idest sensum atque vitam scilicet spiritu [*Similar to G f.367r (inter)*]

852. (inter) [**anima autem**] quinta differencia [*A f.231r (inter) reads quinta; longer gloss found in C f.211v (inter)*]

853. (inter) [**prima causa**] sensum et vitam primo sed non immediate.

854. (inter) [**huius rei**] scilicet vite et motus corporis [*Similar to E f.207va (inter)*]

855. (inter) [**in eo**] scilicet corpore [*Longer gloss in E f.207va (inter)*]

856. (inter) [**operatur hoc**] scilicet vitam et motum et sensum scilicet uniuscuiusque eorum

857. (inter) [**spiritus igitur**] sexta differencia [*A f.232v (inter); longer gloss found in C f.211v (l inner); longer gloss in E f.207va (l inner)*]

858. (inter) [**causa vite**] corporis [*C f.211v (inter)*]

859. (inter) [**anima vero huius causa**] scilicet operationis corporis

860. (l inner) [**quia erit**] quia omnis causa primaria magis influit in causatum quam causa secondaria.[*E f.207va (l inner); G 367r (l marg)*][42]

861. (inter) [**quia erit**] quia anima influit vitam ... spiritus vero ab anima[43]

862. (inter) [**ex partibus durissimis**] ut ossibus et unguibus

863. (inter) [**et terrea**] vel tenera

864. (inter) [**nervi quoque atque vene**] sunt partes corporis humani

865. (inter) [**ex partibus humidis**] scilicet conponitur corpus humanum [*E f.207va (l inner); G f.367r (inter)*]

866. (l inner) [**utraque colera**] scilicet magis et que est nigra et rubea et hoc dicitur proprie colera. [*Similar to E f.(l inner)*]

867. (inter) [**et ex spiritu**] scilicet corpus humanum conponitur [*C f.211v (inter) lacks humanum; E f.207va (inter); G f.367r (l marg)*]

868. (l inner) [**quoque et nervis**] tanquam et deferentibus huius spiritus. [*Similar to E f.207va (inter)*]

869. (l inner) [**actus**] et ita spiritus maxime movet et operatur in corpore ita quod secundum eius diversitatem diversimode operatur.

870. (inter) [**actus**] anime ....

871. (inter) [**eius**] spiritus [*C f.211v (inter)*]

872. (page bottom) [..]

Nota quod spiritus et anima differunt

(A) aut secundum essenciam suam et substanciam et sic est prima differencia

(B) aut secundum potenciam

(i) aut passivam

(a) aut secundum quod est in corpore et sic est secunda differencia

(b) aut secundum quod est extra corpus et sic est tercia differencia

(ii) aut activam

(a) aut quod ad mediationem et immediationem et sic quarta

(b) aut quod ad eius prioritatem et posterioritatem et sic quinta

(c) aut quod ad eius propinquitatem et remotionem et sic sexta

f.387r

873. (inter) [**complexiones**] diversas

874. (r inner) [**complexiones**] ita quod diverse sunt virtutes propter diversas complexiones corporis.

875. (l marg) [**perfectione equalitatis**] perfectam et debitam qualitatem.

876. (inter) [**cuius vero**] corporis

877. (inter) [**in quibus**] membris

878. (inter) [**quod ei debetur**] spiritui

879. (inter) [**imperfectiores**] propter intemperanciam

880. (l marg) [**hac de causa**] ...ad diversas complexiones corporis sequitur diversitas spiritus et operationum hac de causa.[44]

881. (r inner) [**in pueris inperfecte**] quia non sunt debito modo complexionati cum recedant ab equalitate humorum et hoc propter superfluitatem humiditatis in eis existentis.

882. (inter) [**mulieribus**] scilicet mulieres sunt fluide et flexibiles et propter defectum caloris in eis existentes.

883. (r outer) [**et similiter**] quia propter defectum debite complexionis in eis fit defectus spirituum et operationum anime cum.

884. (inter) [**complexione sit**] vel viget

885. (inter) [**ethiopes**] et sub sclavi

886. (r outer) [**propter hoc**] quia ad diversitatem complexionis sequitur diversitas spiritus propter hoc.

887. (r inner) [**spiritu diversi**] propter diversitatem spiritus existentis in partibus diverse complexionis. [*Shorter gloss found in C f.212r (inter)*]

888. (inter) [**fiunt sensus**] que sunt operationes magis subtiles

889. (inter) [**propter quod adquisivit**] scilicet spiritus animalis

890. (inter) [**supra spiritum**] scilicet vitalem

891. (inter) [**ventriculis sequentibus**] idest in media parte cerebri

892. (r inner) [**providencia**] que sunt operationes valde subtiles.

893. (inter) [**hoc quod acceperunt**] scilicet spiritus qui est in media parte cerebri

894. (r inner) [**supra alium**] scilicet existentem in parte anteriori. [*B f.282v (inter); similar to C f.212r (inter)*]

895. (inter) [**necessarium est ei**] spiritui vel homini

896. (page bottom)

vegetiva cuius opera ... -nutrire

-reficere -quo facit anima mediantibus hiis virtutibus -attractiva

-retencia

-digestiva

-expulsiva

897. (page bottom) [..]

anima (A)sensitiva cuius opera ... (i) videre

(ii) audire

(iii) gustare

(iv) oderare

(v) tangere

Vel preter hoc facit ... et secundum locum ... que omnia ... actio ...

(B) rationalis cuius opera ... (i) cogitare

(ii) providere

(iii) estimare

(iv) dubitare

(v) memorare

et hoc proprie ... homini

Some 40% of the glosses in *D* are shared with other manuscripts. With further research it will appear that many more glosses are shared. There is a total of 757 sharings between *D* and the other manuscripts. On average every shared gloss in *D* occurs in two other manuscripts, and individual figures go as high as 6. Some of the glosses, especially the larger ones and the ones spread out graphically, like the very last gloss, seem to be unique to manuscript *D*. Indeed these appear to be outside the 'Oxford gloss', representing individual exposition perhaps by teaching masters. There appear to be memoranda which clearly set out the most important points to come out of the text, like the last gloss which sets out the powers of the soul, the vegetive, sensitive and rational. These are then subdivided into their constituent parts. The visual breakdown of this gloss is a quick and easy way to understanding, like bullet points in modern word processing.

(iii) The purpose of the Glosses

The system of glosses is complex. The glosses correct, comment on and elucidate the central text. It seems apparent that the marginal glosses were written at a later date than the central text after lectures had been heard. Rough notes were probably taken on wax tablets.[45]

Glosses and postils in the manuscripts are either interlinear, that is, written in between the main lines of the central text, or written out in the large margins specifically created for the reception of the glosses. The interlinear glosses are most often short in length, sometimes only two or three words. The smaller of these seem to make grammatical or textual corrections to the text. The large interlinear glosses expound the text. Longer glosses are necessarily written into the margins provided. These further expound points in the text. Large glosses, often containing quotations from commentaries, are found in the margins on account of their length. The shorter glosses are often introduced by *scilicet, id est* or *vel sic* (see figure J, first leaf: the capital 'a' above the second line of the main text precedes gloss 4 which starts with *scilicet*). It seems, however, that there was no strict difference between interlinear and marginal glosses, for a gloss can be found as an interlinear gloss in one manuscript and as a marginal gloss in another.

These glosses are linked to the central text in several ways. An underlined lemma that quotes a word or two from the central text can indicate to which part of the text a gloss refers (see figure J, first leaf: in the left-hand margin there is a capital 'b' and just below it is gloss 15 which is connected to the text by the use of a lemma). An asterisk or some such

other little mark can also place a gloss (see Figure J, first leaf. Between the eleventh and twelfth line of the main text there is a capital 'c'. Just to the left of this can be seen a small asterisk-like mark. At the end of the line there is another capital 'c'. To the right of this is the same asterisk-like mark with the gloss connecting the gloss to the text). Sometimes a gloss may just be written near the text to which it refers with no visible indication as to its exact point.

Many of the larger glosses are excerpts taken from commentaries written on the text in question. Sometimes the authors of these are even named. A gloss may start with the words *secundum alvredum*, that is, "following what Alfred [of Shareshill] says" (see figure I: at the top left hand corner of the leaf there is a capital 'a'; below this is a gloss starting with *alvredus*). There will then be a fragment of Alfred's commentary written in the margin to explain a point in the text. Unfortunately these named glossed are a minority, and most glosses show no indication of their origin.

Recent research on these glosses had led to the conclusion that some form of 'common gloss' exists in some manuscripts of the *Corpus vetustius*. This 'common gloss' has been well noted for thirteenth-century manuscripts of the Bible. The 'common gloss' found in copies of the *Corpus vetustius*, however, is not as advanced as of the Bible. Charles Burnett has termed this gloss the 'Oxford Gloss', as described by Fernand Bossier and Jozef Brams in their recent edition of the *translatio vetus* of the *Physics*. I quote from Charles Burnett:

> The Oxford gloss is a title I have given to the "châine de gloses scolaires constitué a Oxford" described by Fernand Bossier and Jozef Brams

> in their recent edition of the *translatio vetus* of the *Physics*. These two scholars have isolated this sequence of glosses, which includes references to <"alia translatio>" and annotations between the lines and margins, in ten English manuscripts; and they characterise it as being very similar in all the manuscripts, but at the same time clearly differentiated by the selection and arrangement of the glosses, which suggest to them that the sequence of glosses can neither have been simply copied from one manuscript to another, nor be traced back to several glossators working in isolation from each other. Rather it gives one a glimpse of the (possibly progressive) elaboration of a corpus of scholastic exegesis of the text.[46]

This describes the Oxford gloss for the *De differentia*. The many shared glosses are not uniform, that is, not always word for word, and not always marginal or interlinear. This, as said above, suggests several glossators rather than one; this fits into the picture we already have of certain students copying up their lecture notes.

Charles Burnett points out that nine of these thirteenth-century manuscripts contain what we may call the 'Oxford Gloss', and that this 'Oxford gloss', written in English cursive, is found in a Vatican manuscript of the *Corpus vetustius*. This manuscript also contains large glosses by Adam of Buckfield. It would seem that Oxford was the centre of this glossing tradition, and that Adam of Buckfield's commentaries may be central to the development of the gloss. Henry of Renham's manuscripts contains this 'Oxford Gloss', and we know from

his inscription that he heard lectures at Oxford and that his glosses are the product of these lectures.

During my research on Adam of Buckfield I have noticed that other manuscripts also share postils similar to what has been termed the 'Oxford gloss' for the *De Differentia spiritus et anime*. In these manuscripts the gloss is written in an English cursive hand as in the British and Italian manuscripts, pointing to Oxford as their origin.

It seems certain that many more manuscripts from the *Corpus vetustius* will contain similar postils and glosses and perhaps will share some form of common gloss.

More research on these glosses will show the extent of Oxford's influence on natural philosophy in the thirteenth and fourteenth centuries. The very facts that the English cursive hand used for the gloss is predominant in the manuscripts, and that glosses from such figures as Adam of Buckfield and Alfred of Shareshill are common, attest to influence of Oxford's natural philosophy.

This technique of identifying glosses from the *Corpus vetustius* manuscripts will prove useful for highlighting the use of other authors of commentaries in university teaching. Indeed the origin of the compilation of the *Corpus vetustius* may shed light on its important contributors such as Alfred of Shareshill, whose name appears again and again in the glosses. The identification of these glosses shows us who was used and considered as authoritative in the teaching of natural philosophy, and who best explained and solved the problems found in the natural philosophical texts.

It is obvious that this is a promising area for further research.

(iv) Analysis of the types of gloss

a.

Introductory, giving the author and title. These are not usually given by the scribe when copying a manuscript, and their presence here is evidence of teaching. e.g. *D* gloss 1 (l marg) *<con>stabulus de differencia spiritus et anime*, 'Constabulus [Costa ben luca] on the difference between the spirit and the soul'; *B* f.276r (inter) [***scribo***] *ego constabilarius*, 'I Constabilarius [Costa ben Luca]'.

b.

Also introductory, explaining how the book came to be written.

D no.2 (inter) [***Interrogasti***] *amice ... philosophie et hoc onorasti me* [*Similar to first gloss in A, G and E*]

B f.276r (inter) [***Interrogasti***]... *amice tu*; f.276r (r. inner marg) [***Interrogasti***] *loquitur cuidam philosopho ad cuius petitionem hoc opus ag<g>ressus est*, 'he talks to a certain philosopher at whose asking this work was undertaken'; *F* f.214v (r inner) [***Interrogasti***] *Interrogasti et cetera per hoc tangit causam suscepti operis*, 'through this he touches on the reason for the undertaking of the work'; *F* f.214v (l outer) [***honoret te deus***] ***honoret te deus*** *disciple de quo de eo quod petistis a me indebet quod ego fecissem quendem libellum de differencia spiritus et anime et in hoc tangit commendatio petentis*, 'it is necessary for me to have made a certain booklet on the difference of the spirit and soul, since you have asked me about such subject matter; this book touches on the subject matter of the inquiry'. *G* f.358v (l inner) [***te novi***] *te cui scribo*, 'to whom I write'.

These glosses help explain that Costa had written this text for a certain friend of his who had questioned him on this subject matter.

c.

Some glosses correspond to parts of the introductory *accessus* or 'Aristotelian prologue'[47], which was a rational part of medieval commentary explaining the contents. The *accessus* forms the introductory part of many medieval commentaries and here we can see it was used also as a technique for lecturing. This medieval technique was based on Aristotle's four causes. The *accessus* is introductory and the causality form of it is common. The teacher used it to explain the text more fully to the class. Glosses 5 and 6 supply the efficient cause; this is the *auctor*, the person who brought the work into being. This is of course Costa ben Luca and gloss 1 has supplied the *nomen auctoris*. Next comes the material cause in the 'Aristotelian prologue', supplied by gloss 3; "the material cause was the substratum of the work, i.e. the literary materials which were the writer's sources."[48] The material cause in this case is the difference between the spirit and the soul. Then comes the *Causa materialis* in the prologue; "the formal clause of the work was the pattern imposed by the *auctor* on his materials." This material cause was considered to be a twofold form comprising of the *forma tractandi* being the writer's method (*modus agendi* or *modus procedendi*) and the *forma tractatus* or the structured organisation of the work. Gloss 15 supplies the formal cause with the *modum agendi*. Gloss 551 mentions the *modum agendi*. There is a final cause in 25.

The formal cause of the work was the ultimate justification for the existence

> of a work, the end or objective aimed at by the writer; more specifically, the particular good which (in the opinion of the commentator) he had intended to bring about. In the context of commentary on secular *auctores*, this meant the philosophical import or moral significance of a given work.[49]

The commentator has decided that the petition from Costa ben Luca's friend for him to write the treatise is the final cause for this text.

Gloss 19 gives *prima causa*, gloss 22 *secunda causa* presumably first and second causes of writing

d.

This type is often characteristic of interlinear glosses. They aid the understanding of the text by identifying the noun referred to by a pronoun (or something similar). Gloss 4 is an example of this; it explains that *ea* refers to *differencia inter spiritum et animam*. This gloss starts with *scilicet*. This is typical of such glosses. This word points to the function of this type of gloss. The gloss may be translated as 'this is obviously the difference between the spirit and the soul'. Gloss 7 is another example. *Idest* is another common word introducing this type of gloss. Gloss 11 explains that 'of him' means 'of Plato'. Gloss 14 explains that 'which' means 'book'. These glosses make it easier to follow the sense of the text, which as we have discussed before, could often be quite obscure.

e.

Another category of gloss occurs where the text is unintelligible. Gloss 13 deals with a name corrupted in copying, when Empedocles became bendedinis. The glossator, whether or not he knew the correct name was 'Empedocles', tried to correct the false name of bendedinis. Later in gloss 535 '*bendidis*' is properly corrected as Empedocles.[50] Gloss 8 gives *excerpsi* as an alternative for the word *traxi*, and *excerpsi* is the word that appears in Wilcox's edition. This suggests that the lecturer knew this was the more acceptable word. Some terms which were not corrupt are also dealt with by this type of gloss, such as gloss 46. The occurrence of an Arabic word such as *asurinet* is explained away as an 'Arabic name'. This sort of glossing highlights the problems inherent in the thirteenth-century translations of natural philosophy. The translator John obviously knew no satisfactory Latin word to translate *asurinet*. In this way many Arabic words came into the language of natural philosophy.

f.

Many glosses enlarge on nouns, often technical terms. Gloss 39 explains what the *spiritus* is. The explanation may come from later on in the text or from another author (Adam in gloss 63), but clearly the teacher felt that *spiritus* needed expansion. Gloss 41 is a longer example of this type of gloss. Other parts of speech also needed expanding. Gloss 43 explains what sense 'subtle' has as an adjective. Gloss 47 explains the gerund *vivificandum*. Gloss 53 explains what is means by the adverb *similiter*.

g.

Another category is where the gloss imports whole doctrines from outside sources. Aristotle, Averroes, Alfred of Shareshill and the 'medical men' are used for this (see Chapter 4). Gloss 382 is an example of this type of gloss. The passage is from Adam of Buckfield's commentary on the *De differentia* as shown in Chapter 4. Gloss 40 gives theories *secundum medicos* 'following the medics'. At the time of the glossing of the *Corpus vetustius* medics were setting themselves up in the universities,[51] and so were becoming a more important source of authority for natural philosophy. The link between medicine and natural philosophy has been noted.

Some glosses show evidence of the way in which a teacher divided up the text. Gloss 38 mentions the beginning of the 'executive' part. Gloss 123 mentions the second part of a *capitulum*.

Several glosses reflect the oral nature of their origin. Gloss 740's use of *ecce* suggests oral teaching as does the use of the imperative in gloss 60

Gloss 9 is interesting, since it refers to the word *catadon*, which in fact is Plato's *Phaedo*. The gloss suggests that this book was not available to the teacher or glossator, although this work had been translated into Latin in the twelfth century by Henry Aristippus.[52]

In this chapter we have shown that a complex system of glossing existed for natural philosophy at Oxford university. We have seen the European spread of manuscripts containing this gloss, and that Adam of Buckfield's work forms part of this gloss. Further research into the *Corpus vetustius* will surely reveal more evidence of the importance of

both Oxford university and Adam of Buckfield for the teaching of natural philosophy.

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1 . Parkes, 'The provision...', pp.407-483 (p.446).
2 . This codex has a strange rearrangement of the folios. This will be seen in a strange order of folio numbering in the following sequence of glosses for *A*.
3 . This gloss is in a different hand from the rest, most likely a later hand.
4 . See BL, Royal 12 G II
5. The fold of the page makes a complete reading impossible.
6. The fold of the page makes a complete reading impossible.
7 . I am unsure of the reading, the meaning and the position in the sequence of this gloss.
8 . This is where the gloss stops following Adam's text in Camb., Peterhouse, 143.
9 . This gloss refers to a line that does not appear in Wilcox.
10 . This gloss refers to a line that does not appear in Wilcox.
11 . This gloss refers to a line that does not appear in Wilcox.
12 . Smudging spoils the reading. I am unsure of the meaning and the position in the sequence of this gloss.
13. The fold of the page makes a complete reading impossible.
14 . The fold of the page makes a complete reading impossible.
15 . The fold of the page makes a complete reading impossible.
16 . The fold of the page makes a complete reading impossible.
17 . This gloss is in a different hand from the rest. Most likely a later hand.
18. Smudging.
19 . The fold of the page makes a complete reading impossible.
20 . The fold of the page makes a complete reading impossible.
21. Later hand.
22 . Note that in Adam's commentary Avicenna is mentioned by name, here he is *commentator*.
23 . This is pretty much word for word when compared to Adam's commentary.
24 . The fold of the page makes a complete reading impossible.
25 . This passage is Adam's.
26 . The gloss is smudged from damp damage.
27. Smudging.
28 . Bad smudging.
29 . Smudging.
30 . The fold of the page makes a complete reading impossible.
31 . The fold of the page makes a complete reading impossible.
32 . Smudging.
33 . This is reasonably close to Adam's work.
34 . Possibly a different hand.
35 . The fold of the page makes a complete reading impossible.
36 . I am unsure of the reading, sense and position of this gloss.
37 . The fold of the page makes a complete reading impossible.
38 . This is part of central text.
39 . Smudging
40 . Smudging.
41 . Smudging.
42 . Costa's text in Wilcox excludes the phrase that forms the *lemma*.
43 . Costa's text in Wilcox excludes the phrase that forms the *lemma*.
44 . The fold of the page makes a complete reading impossible.

45 . Bischoff, p. 14.
46. Burnett, 'The introduction of Aristotle's...', pp.21-49 (p.38-39).
47. Minnis, A. J. *Medieval theory of authorship: Scholastic literary attitudes in the later middle ages*. (Aldershot: Scolar Press, 1988), p.28.
48. Minnis, *Medieval theory* .., p 28.
49. Minnis, *Medieval theory*... , p.29.
50 . These two glosses are in different hands, gloss 535 is in the English cursive used throughout.
51 . See Siraisi, *Medieval and early*..., ch.3.
52 . Lindberg, pp.52-90 (pp.73-4).

Conclusion

This thesis presents evidence for the argument that the development of natural philosophy in the thirteenth century owed a great deal to the way it was taught in the university of Oxford. In particular, an analysis of the work of Adam of Buckfield, hitherto a little-studied figure, has shown the manner in which natural philosophy was taught in Oxford. This thesis highlights the long-standing English interest in natural philosophy that aided the development of this at Oxford, and this is essential background for Adam of Buckfield's influence as a lecturer and writer of commentaries at Oxford in the mid-thirteenth century. It is pointed out that Adam as an Oxfordian lecturer was writing at a time when natural philosophy was banned at the university of Paris. From the early statutes of the Universities of Paris, Oxford and Toulouse it is apparent that Oxford did have some intellectual lead in this area of university study. It is argued that when first the English Nation and then the University of Paris as a whole made natural philosophy statutory just after the middle of the thirteenth century, it was material and teachers from Oxford that made this possible. Manuscript evidence furthered supported this idea.

The evidence for this argument is primarily palaeographical. The thesis establishes that the *Corpus vetustius* collection of Aristotle's physical works was used in conjunction with the teaching of natural philosophy by providing students with a text and acting as a vehicle for notes taken from lectures. An analysis of the annotations establishes that there were two major traditions, in one of which a whole commentary appears alongside the relevant text, while in the other, fragments of commentaries were used o compose a

standard gloss, essentially the same in different examples of the *Corpus vetustius.* This is further evidence of the recently recognised 'Oxford gloss'.

As has been shown, lectures at Oxford were the origin of this gloss. Burnett pointed to nine manuscripts in British Libraries that contained this gloss. So in Chapter 5 of this thesis the intention was to show that this gloss existed in manuscripts in European libraries. Several manuscripts were identified, as many more will be with further research. This furthered the argument for the influence of Oxford's teaching of natural philosophy in Europe.

Glosses that are fragments of Adam of Buckfield's commentary on *De differentia spiritus et anime* were found in the manuscripts containing the 'Oxford gloss' for this book. This firmly places Adam's work in the context of highly developed teaching of natural philosophy at Oxford in the thirteenth century and the subsequent spread of this teaching and commentary in Europe. The manuscript Vatican Urb. Lat.206 proved to be a clear indicator of this. It contains both the Oxford gloss and large sections of Adam's commentaries in the margins as shown in Chapter 4. These passages of Adam's commentaries are written in Italian and French hands. This shows the continental demand for an Oxfordian lecturer and commentator who never taught at Paris.

The palaeographical evidence includes that taken from another manuscript tradition, that of collections of whole commentaries. Reasons connected with patronage are offered for the very different nature of this manuscript tradition. The evidence is focused by selecting that which relates to Adam of Buckfield, one of the earliest systematic commentators. Details are given of the date, distribution and national manuscript-hands of

all the manuscript traditions, that is, where Adam's work was used in fragments to build the 'Oxford gloss' and where his commentaries appear whole, both in the *Corpus vetustius* and in collections of commentaries.

All the evidence supported the idea of the more advanced development of natural philosophy at Oxford. The research done in this thesis points to the evidence that stills lies untapped within the glosses of the *Corpus vetustius* manuscripts. Further research will reveal much information about the way in which natural philosophy was taught and understood by the schoolmen of the thirteenth century. It will become clear who were the main authorities used in this teaching, and which contemporary masters, such as Adam of Buckfield, wrote influential commentaries. This will give us greater understanding of the development of natural philosophy and more generally medieval education, both of which were to last until the seventeenth century.

Appendix A

Wilcox, J. C. 1985. p.143-191.

John of Seville's version

Incipit liber differentie inter animam et spiritum quem consta ben luce cuidam amico suo scriptori cuiusdam regis edidit et iohannes hispalensis ex arabico in latinum Raimundo toletano archiepiscopo transtulit.

Interrogasti[2] me, honoret te deus, de differentia que est inter spiritum et animam[3], et ut tibi scriberem quod antiqui dixerint in ea;[4] et ecce scribo[5,6] quedam collectiva[7] que excerpsi[8] de libro platonis qui vocatur cadon[9,10] et eius[11] libro qui vocatur tymeus et ex libris aristotelis philosophi et theofra<s>ti[12] ac benededis[13] in animam; ex libro quoque galieni quem[14] fecit de concordia quarumdam sententiarum gloriosissimi[15] ypocratis atque platonis et ex libro[16] eiusdem galieni quem in opere cirurgie et in utilitate membrorum[17]. Et usus sum2 in eo[18] maxima brevitate, quia novi[19] te4[20] variis[21] negotiis occupatum et in operibus regis valde sollicitum, et quia[22] pre angustia[23] temporis impossibile est tibi in huiusmodi[24] libris aspicere. Et credo5[25] quia hec que scripsi tue sufficient petitioni,[26] deo auxiliante,[27] maxime cum sis in scientia naturarum peritus, et nunc incipiens dicam3[28] quia qui voluerit scire differentiam inter duas res necesse est primum[29] scire quid sit unaquaque earum,[30] quia impossibile est ut aliquid sciat differentiam duarum rerum nisi sciat quid sit

unaquaque earum.[31] Et habita scientia uniuscuiusque[32] earum poterit scire earum differentiam; et quia volumus patefacere anime spiritusque differentiam, necesse est ut primum loquamur de anima et spiritu, postea de differentia que est inter utrumque.[33] Et incipiamus a spiritu, ut sit opus[34] levius postea[35] sequatur locutio de anima.

Spiritus[36,27,28,39,40,41] est quoddam corpus1[42] subtile10[43] quod in humano corpore[44,45] oritur ex corde et fertur in assurianet,[46] idest in venis pulsus ad vivificandum corpus;[47] operaturque[48] vitam[49] et anelitum[50] atque pulsum;[51,52] et similiter9[54] oritur ex cerebro in nervis[54] et operatur[55] sensum atque motum.[56] Et quidem[57,58] ex laudabilibus8[59] medicorum atque philosophorum de his[60] qui in corporibus viventium usi sunt opere cirurgie[61] putaverunt quod in corde sunt duo ventriculi[63] vel concavitates,[64] una[65] scilicet in dextra[66] parte eius et alia in sinistra,[67] et in his duobus ventriculis continetur sanguis[68] et spiritus; sed in dextro[69] ventriculo plus est de sanguine[70,71] quam de spiritu; in sinistro[72] vero plus spiritus quam sanguinis.[73] Et ex ventriculo12 dextro[74] procedunt due vene,[75] una quarum vadit[76,77] ad pulmonem, et fit per eam[78] anelitus cordis.[79] Cor enim colligatur14[80] atque extenditur,[81] et per extensionem[82] eius atque collectionem[83] fit pulsus[84] totius corporis, et ideo[85] pulsus16 indicat[87] esse cordis, idest eius passiones proprias tam equales,[88,89] quam inequales atque diversas[90] que fiunt causa diversi[91] impedimenti eiusdem cordis quod[92] accidit ei[93] a semetipso,[94,95] vel a quibusdam membris sibi vicinis.[96,97] Cor ergo cum extenditur15[98] attrahit per predictam venam[99] ex pulmone partem,[100,101] aeris[102] qui ingreditur ad pulmonem per anelitum[103] ad refrigerandum calorem naturalem[104] qui est in eo[105]ut sit hoc[105a] nutrimentum vel

sustentatio eiusdem spiritus[106] qui continetur in eis ventriculis.[107] Et cum cor colligatur,[108] pulsat[109] per ipsam[110] venam ad pulmonem[111] quicquid[112] generatur[113] in eo vaporum[104] fumosorum et expellit eos,[105, 106, 120] a corpore,[121] et hec vena vocatur pulsus.[122] Alteram vero[123] venam13,[124,125] vocant arabes alabhar,[126] et hec vena in ipso ortu suo ex corde dividitur in duas[127] divisiones quarum[128] una ascendit petens[129] superiora corporis; et procedunt ex ea[130] rami a pectore[131] usque ad extrema[132] capitis per quos[133] vivificatur pars hec[134] corporis. Et altera[135] petens inferiora corporis descenditque usque ad extremitates pedum, et procedunt ex ea[136] rami per quos[137] vivificatur[138] pars inferior humani corporis; et rami utriusque partis[139] vene[140] predicte qui dispertiti[141] sunt per reliquum[142] corpus[143] vocantur surienet,[146] idest pulsus,[145] et hec est[146,147] causa18 vite humani corporis proprinquior,[148] per hoc[149] quod tribuit[150] unicuique membro de spiritu[151] qui est in ventriculo cordis sinistro;[153] et inditium[154,155] quo probatur quod vita humana fit per spiritum hunc est quod videtur17 de exitu eiusdem spiritus in hora mortis, scilicet ventris et oris[156] labiorum[157] quoque ac pectoris,[158] illud scilicet quod fit quasi singultus,[159, 160] et slatus atque altus anelitus; et vulgus vocat hec omnia arabice annaza, idest recessio[161] vel exitus anime, et eius exitus[162] a corpore19[163] fit per ipsum[164] iter[165] quo[166] ingreditur ad ipsum[167] aer[168] quia[169] egreditur a ventriculis cordis ad pulmonem per venam[170] quam supra diximus que[171] transit a corde in pulmonem ut attrahat aerem[172] et extrahat vaporem[173] fumi; et ex pulmone per calamum[175] pulmonis, idest[176] per guttur,[177] transit ad os et eius[178] exitus ex ore21 fit tempore motus oris, quando scilicet aperitur os, et iam a se[179] non potest claudi;[180,181] sed necesse est iam ut claudatur[182] propter

annullationem[183] vite post exitum eiusdem spiritus[184] ab eo.[185] Causa autem22 qua egreditur hic spiritus[186] a corpore, idest[187] causa mortis et causa velocitatis sive tarditatis[188,189] eius exitus, levitas[190] scilicet mortis[191] sive eius gravitas[192] et apparitio[193] eius20 in quibusdam[194] hominum vel occultatio eius in aliis,[195] causa quoque subitanee mortis[196] et cetera talia,[197] aliena[198] sunt a libro isto quia maioris inquisitionis sunt et indigent primis propositionibus et argumentis probabilibus ex pluribus libris medicorum[199] artis quorum[200] expositio prolixa est, et ideo dimisimus nunc eorum[201]commemorationem.[202] Patet autem[203] per hoc23 diximus[204] quod vita sit per hunc spiritum[205] qui est in ventriculis cordis[206] et quod pulsus[207] atque anelitus sint constituti[208] ad[209] adaptionem eiusdem[210] spiritus: ad refrigerandum scilicet eum per aerem qui ingreditur ad eum de foris[211] et per expulsum vaporum fumositatis ab eo.[212,213] Iam igitur patet24 quod spiritus qui est in ventriculis cordis sit causa vite et anelitus[214] atque pulsus, et hoc est quod necesse est sciri de spiritu vitali, cuius emanatio[215] est ex corde. Spiritus,[216,217] vero qui procedit11[218] a cerebro et transit[219] ad cetera[220] corporis membra, vocatur animalis,[221] cuius[222] nutrimentum vel sustentatio est spiritus[223] qui[224] fit in ventriculis cordis, quia divisiones partis <u>surien</u>,[225,226] idest pulsus qui vocatur <u>alabhar</u>[227] qui mittitur a corde in superiores partes corporis, cum pervenerint omnes ad os[228] capitis[229] et penetraverint illud, coniunguntur omnes[230,231] ad invicem et componumtur et contextuntur[232] ad instar[233] texture retis, et de ipsis pulsibus[234] contextis[235] extenditur quedam pars[236] sub cerebro petens inferiora cerebri apta[237] ad recipiendum spiritum animalem,[238] tradens[239] ei spiritum de spiritu[240] vitali quem[241] diximus esse in ventriculis cordis. Cerebrum vero27 dividitur,[242,243] in duas

divisiones26?[244] quarum una est anterior,[245] que est maior, et altera posterior.[246] Et in illa anteriori[247] duo sunt ventriculi[248] habentes introitum ad commune spatium,[249,250] quod est in medio cerebri. In posteriori,[251, 252] vero habetur unus ventriculis faciens[253] iter ad supradictum spacium quod est commune[255] utrisque ventriculis qui sunt in anteriori cerebro. Pulsus[256] ergo28 subtiles qui mittuntur a rete[257] quod est sub cerebro ad interiora cerebri, cum pervenerint[258] ad aliquem ventriculum[259] qui sunt in cerebro anteriori,[260] perducunt ad eum[261] spiritum vitalem qui[262] inde[263] transiens ad alium[264] ventriculum efficitur ibi[265] subtilior[266] et purgatur[267] atque aptatur ad recipiendum virtutem anime,[268] et hoc fit ei quasi digestio[269] et conversio in quemdam spiritum subtiliorem[270] atque clariorem.[271] Deinde transit25[272,273] ab ipsis ventriculis[274] in spatium[275] et de spatio in ventriculum cerebri posteriorem per ipsum[276] meatum quo[277] vadit a communi spatio[278] quod est in medio cerebri ad posteriorem. Et in ipso[279] transitu30, idest introitu per quem vadit[280] spiritus, habetur quoddam pitacium,[281] idest quedam particula de corpore cerebri, similis vermi,[282] que elevatur et deponitur,[283,284] in ipso itinere; cumque fuerit hec particula elevata, aperitur foramen, quod est inter commune spatium[285] quod iungit ut ventriculis[286] et ventriculum posterioris[287] cerebri; cum vero deposita[288] fuerit, clauditur. Cum ergo[289] apertum29 fuerit foramen, transit spiritus de anteriori cerebro ad posterius,[290] et hoc[291] non[292] fit nisi cum necesse fuerit recordari alicuius rei, que tradita est oblivioni tempore, scilicet quo fit[293] cogitatio de preteritis. Si vero foramen non fuerit apertum nec transierit spiritus ad posterius[294] cerebrum, nec recordatur[295,296] homo nec aderit ei responsio eorum[297] de quibus interrogatur. Illa autem35[298] apertio foraminis que fit per elevationem illius corporis quod[299] assimilatur vermi[300] est diversa in hominibus[301]

in celeritate et tarditate;[302] fit enim hec[303] in quibusdam tardius[304,305] et ideo fiunt tarde memorie et tardi ad respondendum[306] multum cogitantes. Et ideo accidit36,[307,308] ei qui vult recordari alicuius[309] rei ut caput suum valde mergat vel inclinando[311] illud retrovertat[312] et inmotis[313,314] oculis sursum aspiciat[315] ut hec positio[316] vel figura sit ei[317] auxilatrix ad aperiendum praedictum foramen et ipsum corpus vermile[318] possit sursum elevari.[319] Intellectus[320,321] enim33 et cogitatio, providentia atque cognitio fit per spiritum qui est in ventriculo,[322,323] qui[324] participatur[325] illis[326] duobus ventriculis qui sunt in anteriori[327] cerebro. Cum ergo homo cogitaverit[328] vel aliquid previderit,[329] necesse est ut meatus, idest iter vel foramen quod est inter commune spatium[330] quod[331] iungitur illis duobus ventriculis qui sunt in anteriori parte capitis et ventriculum qui est in posteriori[332] eius, clausus[333] fit ut spiritus videlicet qui est in communi spatio[334,335] possit facere moras[336] ut confortetur et[337] ut sit hoc[338] ei quasi augmentum fortitudinis ad cogitandum et intelligendum, idest ut sit[339] fortior in cogitatione et intellectu, providentia ac cogitatione. Et ideo accidit37[340] ei qui cogitat[341] mergere caput ad terram[342] et multum aspicere eam[343] et incurvet[344] quasi scriberet aliquam scripturam et describeret in ea[345] aliquas figuras, ut sit hoc[346] quasi auxilium ad depondendum[347] illud corpus quod diximus esse simile vermiculo[348] super foramen illius decursus per quem transit[349] spiritus ad posteriora[350] capitis. Spiritus autem38[351] qui est in eo spatio, idest in ventriculo medio, est in hominibus[352] diversus. In quibusdam[353,356] enim est subtilis[355] et clarus, et hic[356] erit rationalis, cogitans dispositor[357] et bone cogitationis; et in quibusdam erit econtrario[358], eritque talis[359] amens[360] irrationalis, levis[361] atque stultus.[362] Et ex ventriculo34[363] cerebri anterioris procedunt .vii. paria nervorum[364] ex

quibus unum par, idest duo nervi ab anterioribus[365] venientes ventriculis, iunguntur oculis, et fit visus[367] per eos[367] et isti[368] inter ceteros nervos[369] sunt concavi[370] quia necesse est visui ut spiritus qui mittitur[371] ad eum esset multus collectus[372] sufficiens atque clarus et nulli alii[373] corpori commixtus. Et aliud par nervorum iungitur coopertorio oculorum, idest palpebris.[374] Tercium[375] iungitur lingue, et per hoc fit sensus gustus. Quartum[376] iungitur palato.[377,378,379] Quintum iungitur tympano[380] auris, et per hoc fit sensus auditus. Sextum[381] descendit ad extra[382,383] prestans eis[384] sensum, et revertitur ex eo[385] quedam pars ad uvam[386,387] movens eam ut colligatur[388] sursum.[389] Septimum,[390,391] iungitur lingue,[392] per quod[393] movetur, et similiter operantur hi nervi[394] per spiritum qui transit in eis ex cerebro ad hec membra. Et inditium huius39 rei[395] est quia cum acciderit aliquod accidens[396] obstruitur meatus spiritus qui est in aliquo horum nervorum,[397] prohibetur ipse spiritus ne pertingat ad membrum[399] et annullatur opus[400] eiusdem membri, ut aqua[401] que colligitur[402] in oculo que cum separat inter spiritum[403] qui est in nervo[404] et aspectum[405] operatur[406] cecitatem, et veluti commixtiones, idest mali humores et vapores qui claudunt et separant inter spiritum[407] ipsum et tympanum auris[408] vel instrumentum odoratus aut instrumentum gustus sive instrumentum tactus,[409] operatur surditatem aut destructionem gustus aut odoratus aut tactus.[410] Cumque aperti[411] fuerint ipsi meatus aut per medicamentum aut per directionem[412] nature reluctante, scilicet natura contra infirmitatem, redit membrum ad opus suum et efficitur[413] sanum et equale.[414] Procedit quoque32 ex parte cerebri posterioris anucha,[415] que est pars[416] cerebri, et descendit per os colli[417] in omne alfecar, qui sunt nodi spine,[418] et disperguntur ex eo[419] multa paria nervorum[420] inter

unumquodque alfecar,[421] scilicet unum par transiens ad alaadal,[422] que est quedam caro[423] commixta venis,[424] per quam[425] fit motus membrorum. Eritque per hoc[426] motus manuum et pedum et totius corporis; cuius rei40,[427,428] indicium est quia si aliquando aliquis ex his nervis[429] passus fuerit aliquod impedimentum[430] abscisionem[431] scilicet vel vulnus,[432] aut clausi fuerint[433] decursus qui[434] sunt in eo,[435] annullatur motus ipsius membri cui[436] immittebatur aut debilitatur vel destruitur, et hoc fit[437] secundum quantitem impedimenti quod passus[439] est idem nervus. Videmus namque manum[440] contracti sanum et integram[441] et alicuius causa impedimenti non apparet in ea et tamen nichil sentit,[442,443] nec movetur. Et cum huiusmodi infirmitates[444] curate fuerint per aliquod medicamentum quo possint aperiri decursus cerebri ut sunt medicamina que purgant decursus membrorum[445] et aperiunt ipsas clausuras,[446] revertitur ad eadem membra sensus atque motus si ipsa infirmitas iam non transierit mensuram[447] curationis[448] et ipsa membra non fuerint adeo debilitata ut non possint sustinere pondus[449] curationis. Et fortassis[450] accidit31 spiritui qui est in omnibus ventriculis,[451,452] vel in quibusdam[453] ex eis aliquod impedimentum ex mala[454] complexione vel commixtione malorum vaporum[455] et propter hoc[456] destuuntur actus[457] eiusdem membri.[458] Verbi gratia42: Cum ille spiritus tantum qui est in anterioribus ventriculis[459] aliquod impedimentum[460] vel corruptionem,[461,462] passus fuerit, fit ex hoc destructio sensuum[463] quemadmodum accidit[464] ei qui ingreditur balneum[465] et ibi moras[466] facit; obscurantur[467] enim oculi[468] eius et nichil videt: aut quemadmodum accidit ei in quo excitatur[469] colera rufa[470,471] et eius[472] vapor ascenderit ad caput eius[473] iunctusque fuerit[474] vapor spiritui[475] qui est in eius[476] cerebro anteriori· similiter,[477,478] obscuratur visus eius et non videt aliquid, et similiter accidit[479] auditui

ceterisque[480] sensibus. Verbi gratia:[481] si affuerit43 impedimentum[482] in parte cerebri media[483] et cetere[484] partes eiusdem cerebri fuerint incolumes, destruitur cogitatio[485] et cognitio tantum et remanent[487] sensus ac motus[488] equales,[489] ut[490] illud quod accidit in melancolica,[491,492] infirmitate,[493] que est commixtio[494] vel turbatio rationis et destructio cognitionis;[495] et si fuerit impedimentum44 in parte cerebri superiori, destruitur memoria tantum et erunt[496] ceteri actus hominis equales, idest recti.[497] Si vero fuerit impedimentum in duobus[498] ex his45? ventriculis aut in tribus et occupaverit[499] totum cerebrum, erit impedimentum in cognitione[500] et in sensu[501] atque in motu[502] universaliter, ut illud quod accidit caducis[503] et his similibus.[504] Probatur ergo41 per hoc[505] quod diximus certissime, quod ille spiritus qui est in anterioribus ventriculis[506] operatur[507] sensus, idest visum, auditum, gustum, odoratum tactum, et cum his[508] operatur athagil, quam greci vocant fantasiam, et quod spiritus qui est in ventriculo medio operatur cogitationem[509] et cognitionem atque providentiam; et spiritus qui est in posteriori ventriculo operatur motum[511] et memoriam. Constat igitur46 ex his omnibus[512] quod in humano corpore sunt duo spiritus,[513] unus qui vocatur vitalis,[514] cuius nutrimentum vel sustentatio est aer,[515] et eius[516] emanatio est ex corde, et inde mittitur per pulsus[517] ad reliquuum[518] corpus et operatur[519] vitam,[520] pulsum atque anhelitum: et alter[521] qui[522] ab anima dicitur animalis, qui operatur in ipso cerebro, cujus[523] nutrimentum est spiritus vitalis,[524] et eius emanatio est ex cerebro, et operatur in ipso cerebro cognitionem et memoriam atque providentiam,[525] et ex eo[526] mittitur per nervos ad cetera membra[527] ut operetur[528] sensum atque motum.

Narrare[529,530,531] aliquid7 de anima[532] certissime[533] grave est et valde et

difficile,[534] Et hoc testatur diversitas et discordia precipuorum philosophorum, platonis scilicet atque aristotilis et gerosii necnon benededis[535] et eorum[536] similiter qui post illos[537] venerunt; sed nos commemoremus47 utrasque diffinitiones quibus[538] diffinierunt eam plato et aristotiles et ipsarum diffinitionum expositionem.[539] Et in expositione uniuscuiusque partis earum utamur argumentis probabilibus[540] et sequatur[541] hec narratio virtutem[542] anime, quia hec sufficiens erit in hoc[543] loco et possibile erit nobis ex eo intentionem nostram, scilicet differentiam que est inter animam et spiritum.[544] Dicamus itaque48 quod plato philosophus diffinivit[545] animam sic: Anima, inquit, est substantia incorporea movens corpus.[546] Aristotiles vero50 in diffinitione anime ait sic: Anima est perfectio[547,549] corporis agentis et viventis potentialiter. Nunc autem exponamus51[550]has duas diffinitiones, et incipiamus[551] a prima, que est platonis. Ostendamusque quod anima sit substantia, et dicamus quia quicquid recipit opposita cum sit unum numero et immutabile[552] in sua essentia est substania; sed anima[553]recipit virtutes[554,555] ac vitia,[556] que sunt opposita; anima igitur recipit opposita cum sit una numero et immutabilis in sua essentia, et ita est substantia. Et item dicamus[557] quicquid movet[558,559] substantiam est substantia; sed anima movet corpus; corpus autem est substantia; anima igitur[560] est substantia. Et quia iam manifestum52 est argumentis patentibus[561] quod anima sit substantia, nunc ostendamus quod anima sit incorporea, et dicamus:[562] Uniuscuiusque[563] corporis qualitates sunt perceptibiles,[564] et cuius[565] qualitates[566] non percipiuntur a corporeo sensu[567] incorporeum est. Qualitates autem anime sunt virtutes ac vitia, que non sunt insensibiles;[568] anima ergo est[569] incorporea. Et item, omne corpus subiacet omnibus[570] sensibus[571] aut quibusdam ex eis, sed animam non subiacet omnibus sensibus neque quibusdam ex eis;

anima igitur non est corpus. Item, omne corpus55[572] aut animatum est aut inanimatum, et si anima est corpus, aut est[573] animata aut inanimata; et impossibile est ut anima sit inanimata si est corpus,[574] quia inconveniens est ut anima sit inanimata.[575,576] Et si dixerimus quod anima sit inanimata,[577] reiterabitur nobis sermo de anima[578] anime utrum sit corpus[579] vel non, et ascendet hoc[580] ad infinitum. Non est ergo anima[581] corpus. Et item,[582] si anima56 est corpus subtile,[583] aut erit aer,[584] spiritus subtilis per totum corpus diffusus,[585] aut erit ignis. Et si fuerit[586] ita, necesse est, ut ille spiritus[587] vel ignis habeat propriam speciem vel propriam virtutem,[588] quia[589] nisi sit ei aliqua propria[590] species vel propria virtus, idest nisi habeat aliquam proprietatem quam non haberet ignis vel aer,[591] erit omnis[592] aer vel ignis anima;[593,594] quod si fuerit ei[595] propria species,[596] ipsa species erit anima.[597] Item,[598] si fuerit anima corpus, necesse est ut eius corpus sit simplex vel compositum,[599] quod si fuerit corpus simplex, erit procul dubio ignis aut aer vel aqua vel terra. Et si fuerit[600] anima unum ex his elementis absolute, idest absque[601] aliqua fortitudine58[602] vel aliqua specie propria[603] qua separetur ab eo quod participatur ei[604] in genere suo, omne quod fuerit[605] ex genere suo erit anima. Sicque probatur, quod si anima fuerit ignis, erit omnis ignis[606] anima; et si fuerit[607] aer, erit omnis aer anima, et similter de ceteris elementis.[608] Et si fuerit[609] ita, omne corpus quod continet ipsum elementum erit animatum.[610] Verbi gratia: Si fuerit[611] aer,[612] pulmo et pulsus[613] atque uter inflatus[614] erunt animata; et si fuerit anima aqua, erit plenum vas aqua animatum, et huiusmodi verba sunt turpia et inania. Et si fuerit57 anima corpus compositum, erit tunc corpus anima,[615,616] non corpus. Et quia iam[617] patet quod anima sit substantia incorporea, nunc exponamus53 quibus modis movet[618] corpus.

Dicamusque quod omne quod movetur54? aut movetur per motum sui[619] moventis, quemadmodum movetur plaustrum per motu bovum, vel movetur cum id quod movet eum non[620] moveatur; quia quod movet aliquid aut movet et movetur vel movet et non movetur. Et hoc fit[621] quatuor modis: quia[622] aut erit[623] per desiderium eius a quo[624] movetur, quemadmodum movetur amator[625] ad eum quem amat, aut per odium[626] aut per fugam sive terrorem, quemadmodum movetur inimicus ab inimico[627] suo per contra eum; aut per actum[628] naturalem, quemadmodum movetur lapis a pondere[629,630] cum pondus per semetipsum sit immobile;[631] vel quia[632] id quod movet est occasio principalis vel causa illius quod movetur, quemadmodum magisterium[633] est causa motionis motus magistri cum magisterium non moveatur per motum magistri. Sic anima movet corpus59[624] et ipsa non movetur per motum eius.[635] Anima igitur est causa motionis animalium per voluntatem et opus[636] atque mutationem[637] et ipsa[638] non movetur[639] aliquo modo motionis corporis eo quod ipsa[640] sit incorporea.[641] Videmus ergo ex his quatuor modis quos diximus quo modo motionis movet anima corpus, dicamusque quod anima movet corpus quarto modo ex secunda specie[642] motionis, hoc est movet corpus[643] cum sit ipsa[644] immobilis. Movet illud[645] eo quod sit ipsa[646] occasio principalis sive causa motionis eius[647] quia homo operatur per eam, idest per animam,[648]1 et eligit per eam;[649] et qui eligit movetur, et quia operatur;[650] et quemadmodum magisterium est causa motionis magistri et illud magisterium non movetur per motum magistri; ita anima movet corpus sed non movetur per motum eius.[651] Anima ergo est causa motus animalium per desiderium et voluntatem et per opus[652] atque mutationem,[653] et ipsa non movetur aliquomodo ex modis motionis corporis eo quod[654] sit incorporea.[655] Et quia iam exposuimus49 diffinitionem platonis qua

diffinivit animam et patefecimus interpretationem[657] omnium partium eius,[656] nunc tractemus de expositione diffinitionis[658] aristotilis philosophi. Aristotiles philosophus ita diffinivit anima60: ut diceret quod esset perfectio corporis agentis et viventis potentialiter.[659] In libro autem, aristotelis quem fecit de anima, talis est diffinitio: Anima est perfectio corporis[661] naturalis[662] instrumentalis[663] viventis potentialiter. Redeamus[664] ad opus61. potentialiter[665] dixit, quia de rebus quedam dicuntur potentialiter,[666] et quedam per effectum,[667] cumque pervenerit[668] res ad effectum[669] per perfectionem[670] designatur,[671] perfectio enim eius[672] est receptio sue speciei.[673] Ex hac parte enim dicitur anima perfectio[674] quia "animal" est animatum potentialiter, et cum animatum fuerit[675] per effectum,[676] tunc dicitur perfectum fore,[677,678] et eius perfectio[679] est receptio sue speciei, idest ut sit animatum[680] sensibile ac mobile voluntarie. Constat ergo ex hoc quod diximus[681] quod anima sit species[682] animalis absque dubio cum sit perfectio eiusdem animalis,[683] quia perfectio rei est receptio[684] sue speciei.[685] Et quia vere probatur65 quod anima sit species[686] et hanc speciem vocavimus perfectionem,[687] necesse est nobis enumerare modos perfectionis et eligere quis ex eis[688] refertur ad animam. Dicamus ergo quod pefectio duobus modis dicatur: est enim perfectio prima, et est secunda. Prima namque perfectio in homine[689] est sapiencia[690,691] atque magisteria. Secunda vero perfectio in homine est[692] studere[693] in his que novit ex magisteriis et scientiis. Verbi gratia: Medicus dicitur perfectio prima propter scientiam medicinam;[694] cum vero ceperit operari[695] quod scit, dicitur perfectio secunda.[696] Anima igitur est perfectio prima,[697] quia qui dormit etsi careat sensu[698] tempore dormitionis, est ei tamen anima sensibilis,[699] et omnis species64 atque perfectio[700] est alicuius[701] rei. Anima ergo est species et perfectio corporis.[702]

Modi autem corporum66 sunt duo, quia sunt quedam corpora in quibus est species naturalis,[703] ut animalia et arbores,[704] ignis quoque[705] et aqua et quicquid habet motum[706] naturalem in semetipso.[707] Et sunt quedam[708] quibus adquiritur species[709] per magisterium[710] ut ostium[711] et sca[m]num. Anima ergo est species[712] corporis naturalis[713] quia corpus[714] non est ex actibus[715] magisterii. Differt ergo species[716]naturalis[717] a specie[718] magisterii, quia species naturalis est[719] substantia et species magisterii[720] accidens est. Anima igitur est substantia quia est species[721] corporis naturalis.[722] Modi quoque corporis67[723] naturalis sunt duo, quia sunt simplicia[725] quedam[724] vero composita. Simplicia[726] vero ut ignis, aer, aqua, terra; composita[727] ut animalia arbores. Anima autem non est species simplicis corporis[728] sed compositi[730] naturalis,[729]quia quicquid habet animam[731] est animatum, idest vivit, et quicquid vivit est convertibile[732] vel dissolubile[733] et necesse est ei cibus[734] quo[735] possit recuperare[736] quod dissolutum est[737] ab eo[738] et qui[739] auxilietur eius vegetationi dans ei incrementum.[742] Cibus quoque indiget diversis instrumentis[743,744] ex quibus[745] sunt quedam[746] ei necessaria[747]ut deferant eum[747] ad corpus[749] reficiendum eumque[750] currere ac penetrare[751]faciant, ut guttur[752] et vene[753] in animalibus, torusque et rami[754] in arboribus. Et quedam sunt necessaria68[755] refecturo[756] corpori ut eiciant[757] ab eo[758] queque superflua, ut sunt in animalibus pori[759,760] sive exitus[761] resine in arboribus. Multiplicantur quoque69 instrumenta[762] in animalibus[763] propter magnitudinem perfectionis eorum[764] et multitudinem operum eorum,[765] quia si est animal, sunt ei membra vite ut est[766] cor, cerebrum[767,768] et quicquid iungitur[769] eis; et si[770] est sensibile, erunt ei nervi[771] atque sensus; si vero fuerit mobile[772] voluntarie,[773] erunt ei

nervi[774] et alaadal,[775] idest caro venosa.[776] Et si est ita63,[777] bene et decenter dictum est[778] quod anima sit prima perfectio corporis naturalis instrumentalis viventis potentialiter. Et hec diffinitio[779] est universalis[780] et habundans[781] et sufficiens omni anime que fuerit in corpore corruptibili vel dissolubili universaliter. Quod autem videtur[782,783] corrumpere62 primam particulam[784] et in loco eius ponere[785] "viventis,[786] potentialiter", non multum discordat ab alia,[787] quia interpretatio utrarumque[788] diffinitionem est una.[789] Dicens enim viventis potentialiter[790] noluit per hoc intelligi, quod corpus ita esset[792] in sua essentia antequam esset anima;[793] post hec recepisset[794] animam per hoc[795] quod possibile fuit sibi vivere; sed voluit intelligi[796] per hoc quod dixit "potentialiter"[797] quod esset ei instrumentum cui[798] esset possibile uti actibus vite.[799] Idem ergo significat[800,801] "instrumentalis" quod "viventis potentialiter".[802] Hec est diffinitio aristotilis, qua diffinivit animam una cum expositione sua qua exposuimus eam et patefecimus unamquamque partem eius.[803] Et quia iam exposuimus utrasque diffinitiones70 platonis scilicet aristotilis et patefecimus interpretationem uniuscuiusque partis earum,[804] nunc loquamur[805] de virtutibus[806,807] anime et dicamus71 quod prime virtutes[808] anime que sunt ei[809] fortitudine[810] quasi genera sunt tres:[811] prima scilicet vegetativa, secunda sensibilis, tercia rationalis, et he virtutes vocantur ad placitum[812] anime.[813] Dicitur enim anima vegetabilis, et anima sensibilis bestialis, et mobilis que movetur scilicet voluntarie, et anima rationalis, que utitur ratione et cognitione[814] ac cogitatione. Anima autem vegetabilis73 que in aliis libris vocatur anima seminalis,[815] est nobis communis cum arboribus et herbis atque animalibus; et anima sensibilis, que alibi[816] vocatur vitalis,[817] nobis et animalibus est communis; anima vero rationalis proprie[818] inest homini.[819] Opus autem72 vegetabilis

anime est nutrire et reficere,[820] et hoc[821] facit[821] per quatuor virtutes que vocantur[823] naturales, que sunt[824] attractiva,[825] retentiva,[826,827] digestiva,[828] expulsiva.[829,830] Et hoc opus[831] invenitur in omni vegetabili, id est in arboribus et herbis et animalibus[832] atque homine. Et opera anime74 sensibilis que dicitur vitalis sunt visus, auditus, gustus, odoratus et tactus, quinque videlicet sensus corporis, et phantasia ac motus transmutationis de loco in locum voluntarie;[833] et hec opera inveniuntur in omni animato,[834] idest in animalibus[835] et homine. Opera autem75 anime rationalis sunt cogitatio et providentia, aestimatio et dubitatio, visus atque memoria. Et hec opera proprie[836] sunt hominis inter cetera animalia.

Et quia auxiliante deo6 iam exposuimus, quid sit spiritus et quid anima, nunc loquamur de differentia que est inter eos.[837] Dicamusque76[838] quod prima differentia inter eos[839] est quod spiritus est corpus; anima vero incorporea est. Et quod spiritus[840] comprehenditur77 a corpore;[841] anima vero non potest[843] comprehendi a corpore.[842] Et spiritus[844] cum separatur78 a corpore perit.[845] Opera vero anime79[846] pereunt[847] a corpore, sed ipsa non perit[848] in semetipsa.[848,850] Anima quoque80[851] movet corpus et prestat ei vitam atque sensum mediatore spiritu, et spiritus operatur hoc absque[852] aliquo mediatore. Anima[853] movet corpus et prestat ei vitam quia prima est causa[854] huius rei[855] et operatur in eo;[856] spiritus vero operatur hoc[857] et est causa secunda. Spiritus81[858] est ergo causa vite[859] corporis et eius sensus atque motus ceterarumque eius actionum proprior et anima est causa huius[860] rei longior Cum enim esset82 humanum corpus compositum ex partibus durissimis[863] que dura sunt ossa vel tenera[864] nervi quoque ac vene[865] et cetera his similia, ex partibus humidis[866] que sunt humores, sanguis scilicet et flegma et utreque colere,[867] et ex spiritu[868] qui est in ventriculis cordis et in cerebro, in pulsu quoque et in

nervis,[869] omnis spiritus qui fuerit in his partibus subtilior et clarior erit ad recipiendum actus[870,871] anime fortior ceteris partibus corporis et aptior; et secundum quantitatem83 subtilitatis ac claritatis eius[872] recipiet ex actibus anime; et propter hoc dixerunt philosophi quod virtutes anime sequantur complexiones[874,875] corporis. Cuius ergo complexio84 corporis fuerit in perfectione equalitatibus[876] erit spiritus qui est in corpore suo in perfectione equalitatis et erit actus anime in eo perfectione equalitatis. Cuius vero[877] complexio membrorum in quibus[878] fuerit spiritus in propria temperatione fuerit minus perfecta, imperfectus erit et spiritus in hoc quod debetur ei[879] ex subtilitate, et imperfectiores[880] erunt actus anime hac de causa;[881] et ideo fuerint86 virtutes anime in pueris imperfecte[882] et in mulieribus87[883] debiliores, et similiter[884] fit in gentibus in quarum complexione vi[n]cerit[885] calor vel frigus propter proprinquitatem earum a sole vel earum longitudinem ab eo, ut sunt ethiopes[886] et sclavi et eorum consimiles; et propter hoc[887] similiter85 fuerit actus anime in spiritu diversi[888] quia fuerit per spiritum qui est in corde vita, anelitus et pulsus, tantummodo eo quod ipse spiritus pre ceteris spiritibus proprior fit aeri et minus subtilis. Postea per spiritum qui est in ventriculis anterioris cerebri fiunt sensus[889] et phantasia propter quod adquisivit[890] de augmentatione subtilitatis supra spiritum[891] qui est in corde, deinde per spiritum qui est in sequentibus ventriculis[892] fit cogitatio et providentia.[893] Et propter id quod acceperit[894] de subtilitate supra alium[895] spiritum, et propter quod necessaria est ei[896] habundancia subtilitatis, dum vult recordari alicuius rei antique et iam precessit et cuius tempus prolongatum est. Et hoc sufficit tibi in hoc de quo interrogasti. Auferat a te deus omnem trisiticiam et expellat a te quicquid fuerit timendum et det tibi fortunam in isto seculo et in futuro.

Translation.

Wilcox p.209-233.

Here begins the book on the difference between the soul and spirit, which Costa ben Luca produced for a certain friend of his, the secretary of a king, and which John of Seville translated into Latin out of the Arabic for the Archbishop Raymond of Toledo.

[Prologue]

You have asked me, may God honor you, about the difference which is between spirit and the soul and that I write down for you what the ancients have said about it; and behold, I am writing certain general themes for you which I have excerpted from the book by Plato called Phaedo and his book called Timaeus, and from the books by the philosopher Aristotle and (by) Theophrastus and Empedocles about the soul; also from the book by Galen which aims to bring into harmony certain sayings of the most glorious Hippocrates and Plato and from the book of that same Galen which treats of the procedures of surgery and of the functions of the parts of the body. And I have exercised the utmost brevity, because I know you have been greatly occupied with various matters and very concerned with the business of the king, and because due to the shortness of time it is impossible for you to look at these books. And I believe that what I write, with God's help, will suffice (for your request), especially since you are learned about natural things. But let me now begin by

saying that for one to know the difference between two things, it is first necessary to know what each of them is, because it is impossible for anyone to know the difference between two things unless he know the essence of each of them; then having knowledge about each of them, it will be possible to know the difference between them. And because we want to set out the difference between the soul and spirit, it is necessary that I first speak about soul and spirit, then about the difference between them. And we will begin with spirit, as this is the easier task, and then a discussion of the soul follows.

[Text]

Spirit is a certain subtle body which in the human body arises from the heart and is borne in the assurianet, that is, in the pulsing veins, for the vivification of the body, and it effects life, the breath and the pulse; and similarly it arises from the brain into the nerves and effects sense and motion. And some praiseworthy physicians and natural philosophers who were experienced in performing surgery on living bodies thought regarding this that there are two ventricles or cavities in the heart, one in its right part and the other in the left; and in these two ventricles are contained blood and spirit, but in the right ventricle there is more blood than spirit, and in the left there is more spirit than blood. And two veins grow out from the right ventricle, one of which leads to the lung, and the breath of the heart is made by it. For the heart is contracted and extended, and by its extension and contraction the pulse is created throughout the whole body and therefore the pulse shows the state of the heart, that is, its own passions, regular as well as irregular, and foreign, which occur on

account of various difficulties of that heart which happens to it in itself or through some member near it. So when the heart extends, it draws in from the lung through the aforementioned vein part of the air which has been taken into the lung by breathing to cool the natural heat which is in it, to be the nutriment or sustenance of that same spiritus which is contained in its ventricles. When the heart is contracted, it drives through that vein to the lung whatever is produced in it of smoky vapors and it expels them from the fiery heat which is in it, and the lung sends them out of the body, and this vein is called the "pulsing" one. The other vein is called by the Arabs alabhar, and this vein, at the very place from which it arises from the heart, is divided into two parts, one of which ascends upwards in the body; out of it from the chest to the top of the head proceed branches from which this part of the body is vivified; and the other, leading downwards in the body, descends to the farthest extremities of the body to the feet, and from it proceed branches by which the lower part of the human body is vivified. And branches from each part of the aforesaid veins which are distributed throughout the rest of the body are called surienet, that is, "pulsing", and this is the immediate cause of life in the human body, because through this it carries to each member some of the spirit which is in the left ventricle of the heart. And an indication by which it is proved that human life comes into being through this spirit is that this same spirit is seen to come out at the time of death by a motion of the stomach, the mouth, lips and chest; in them occurs something like a gasping and a deep, choking breath, the common people call this in Arabic annaza, that is, the returning or the going out of the soul. And its exit from the body is made through the very way by which air gains entrance to it because it goes out from the ventricle of the heart to the lung through the vein we spoke about earlier

which goes from the heart to the lung in order to draw in air and take away the smoky vapor; and from the lung through the reed of the lung, that is, the throat, it goes to the mouth and makes its exit from the mouth at the time of death, namely, when the mouth is open and cannot now close itself, but must be closed (by some attendant) because of the cessation of life after the going out of the spirit from it. Now the cause by which this spirit goes out of the body, that is, the cause of death and the cause of the speed or slowness of its going out, the easiness of death or its difficulty, and its apparentness in certain men or its obscurity in other, and the cause of sudden death and other such matters, are unsuitable for this book because they are matters of great investigations and require first propositions and acceptable proofs from many books on the arts of physicians, the explanation of which is prolix, and we therefore leave off mentioning them. But it is clear by what we have said that life occurs through this spirit which is in the ventricles of the heart and that the pulse and the breath are constituted for the convenience of this spirit: for cooling it (the spirit), by the air which enters it from outside, and through the expulsion of smoky vapors from it. Thus it is now clear that spirit which is in the ventricles of the heart is the cause of life and breath and the pulse, and it is necessary to know this about the vital spirit whose origin is from the heart.

Spirit which comes forth from the brain and pervades to the other parts of the body, whose nutriment or sustenance is the spirit which is made in the ventricles of the heart, is called "animal". As the branches of the surien part, that is, the pulsing vein which is called alabahar which is sent from the heart to the upper part of the body, when they (the branches) all reach the bone of the head (the skull) and penetrate it, they all join together and compose

and construct something like the fabric of a net; and from this arrangement of veins a certain part is extended under the brain reaching toward the lower parts of the brain, (making it) suitable for receiving animal spirit and bearing to it some of the vital spirit which we have said is in the ventricles of the heart. The brain is divided into two parts, of which one is in the front and larger, and the other in the rear. And in the one in front there are two ventricles having an entrance to a common space which is in the middle of the brain. In the rear there is one ventricle making a passage to the above mentioned space which is common to both of the ventricles which are in the front of the brain. Then fine veins which are sent out of the net which is under the brain to the interior of the brain, when they reach one of the ventricles which are in front of the brain, they bring to it vital spirit, which in travelling to the other ventricle, is there made finer and is purged and made suitable for the reception of the power of the soul. And this works on it a kind of digestion and conversion to a kind of spirit that is finer and clearer. Then it goes from these ventricles into the middle space and from the space into the rear ventricles of the brain by the opening for making the way from the common space in the middle of the brain to the rear; and in this passage, that is, the entrance through which the spirit travels, there is a certain particle, that is, a certain small part cut out from the brain resembling a worm, which is raised and lowered into this passage; and when this part is raised, the opening between the common space which joins the ventricles and the rear ventricle in the brain will open. When it is lowered, it will be closed; and when the aperture becomes open, the spirit travels from the front of the brain to the rear. And this does not happen unless it is necessary to remember something which has been given up to oblivion, at the time, that is, of thinking about the past. Indeed, if the aperture does not become open

and the spirit does not go to the rear of the brain, a man will not remember, nor will he be able to respond to things about which he is asked. Moreover, the opening of that aperture which is made by the elevation of that body which is like a worm is different in men with regard to speed and slowness. For instance, it is made slow in some therefore they become slow of memory and slow in responding, absorbed in thoughts. And thus it happens with him who would like to remember something, that his head is somewhat inclined or he bends it backwards and his eyes look up without moving, so that this position or stance is a sort of aid to him in opening the said passage so that the wormlike body can be raised up. The intellect and thinking, forethought and knowledge, occur through spirit which is in the ventricle which is shared by those two ventricles which are in the front of the brain. Therefore, when a man thinks or foresees something, it is necessary that the course, that is, the passage or opening which is between the common space joining those two ventricles which are in the front part of the head and the ventricles which is in its rear, be closed so that the spirit which is in the common space can pause in order to be strengthened and thus provide an increment of power for thinking and understanding; in other words, in order for it to be stronger for knowing and thinking, foreseeing and perceiving. And therefore it happens with him who is thinking that his head bends towards the earth and he looks at it a great deal and he bends over as if he is writing something or working out some figures, as an aid to lowering that body which we have said is similar to a worm over the opening of the passage through which spirit goes to the rear of the head. Now spirit which is in that space, that is, in the middle ventricle, varies among men. In some it is fine and clear, and such a man will be reasonable, thoughtful, provident and of good mind; in some it is the opposite, and such

persons are mad and irrational, unstable and stupid. From the ventricle in the front of the brain proceed seven pairs of nerves, of which one pair, that is, two nerves, coming from the front ventricles is joined to the eyes; vision occurs through these, and they, more than the other nerves, are hollow because it is necessary for vision that spiritus which is sent for it be highly concentrated, abundant and clear and unmixed with any other body. Another pair of nerves is joined to the covering of the eye, that is, the eyelids. The third is joined to the tongue, and through this occurs the sense of taste. The fourth is joined to the palate. The fifth is joined to the eardrum, and through it hearing occurs. The sixth descends to the viscera, providing sense to it, and from it a certain part is returned to uvula, causing it to move upward. The seventh is joined to the tongue and is that by which it is moved. And similarly these nerves operate by means of the spirit which travels in them from the brain to these members; and an indication of this is that when it happens by some accident that the opening for the spirit in any of these nerves is obstructed, the spirit is prohibited from reaching the member and the work of that member is nullified, as when water which collects in the eye, when it stands between the spirit which is in the nerve and the view, causes blindness, and just as mixtures, that is, bad humors and vapors, which obstruct and separate the spirit itself and the eardrum, or in the instrument of touch, it causes deafness or the destruction of taste or smell or touch. And when these apertures are opened either by medicine or by the impulse of nature, that is, by nature struggling against illness, the member returns to its works and becomes healthy and balanced. Also from the posterior part of the brain proceeds anucha, which is a part of the brain, and it descends through the bone of the neck through all the alfetar, which are the nodes of the spine, and from it many pairs of

nerves branch out, between each alfetar, that is one pair going to the alaadal, which is a certain kind of flesh made up of veins by which motion of the members occurs, and the work of the hands and feet and of all the body occurs through this. And an indication of this is that whenever any one of these nerves suffers some impediment, namely from a cut or a wound, or the passages in it are closed, the motion of the member to which it is sent is nullified or weakened or destroyed, and this happens according to the degree of impediment which that nerve has suffered. For we see the hand of a cripple looking healthy and whole and no cause of any impediment is evident in it, and yet it feels nothing and does not move. And when illnesses of this kind are cured by some medicine by which the flow to the brain can be opened, such as medicines which cleanse the passages of the members and open those blockages, sense and motion are returned to those members, provided that illness has not passed beyond the point of curing and those members have not become so weak that they cannot withstand the weight of the cure. And sometimes some impediment from a bad complexion or a mixture of bad vapors comes to the spirit which is in all of the ventricles or in some of them, and because of this the acts of that member are destroyed. For example, when only that spirit which is in the front ventricles suffers some impediment or corruption, destruction of sense occurs from this in the way it happens to one who enters the bath and there pauses: his eyes are clouded and he does not see anything; or in the way that it happens with one whom red choler rises and its vapor ascends to his head, and the vapor is joined to the spirit which is in the front of his brain: his vision is similarly obscured and he does not see anything; and so it happens with hearing and the other senses. For example, if there occurs some impediment in the middle of the brain and the other parts of that brain are

safe, only thinking and understanding is destroyed, and sense and motion remain in balance, as happens in the person afflicted with melancholia, which is a mixture or turmoil of the reason and the destruction of knowledge. And if there is an impediment in the upper part of the brain, memory only is destroyed and the other acts of a man are balanced and normal. Now if there is an impediment in two of these ventricles or in three, and it occupies the whole brain, there is an overall impediment to knowledge and to sense and motion, as happens in the case of epilepsy and similar things. Thus it is proved certainly by the things we have said that this spirit which is in the front ventricles operates the senses, that is, vision, hearing, taste, smell and touch, and with these operates athagil, which the Greeks call fantasy; and that the spirit which is in the middle ventricle effects thought and knowledge and foresight, and spirit which is in the posterior ventricle operates motion and memory. It is clear from all these things, therefore, that in the human body there are two kinds of spirit: one which is called vital, whose nutriment or sustenance is air and whose emanation is from the heart, whence it is sent by the pulse to the rest of the body, and operates life, the pulse and breath; and another, which from the soul is called "animal", which works in the brain, whose nutriment is the vital spirit; and its emanation is from the brain and in that brain it operates thinking, memory and foresight; and from there it is sent through the nerves to the other members in order to operate sense and motion.

To say something about the soul is most certainly a serious matter and very difficult, and this is attested to by the diversity or discord among the greatest philosophers, namely, Plato and Aristotle and Herophilus, and also Empedocles, and similarly some who came

after them. But let us relate the two definitions according to which Plato and Aristotle have defined it and [give] an explanation of these definitions. And in the explanation of each part of them let us use probable arguments, and a discussion of the power of the soul follows; because this will be sufficient for here and it will be possible for us to show from it what we intend, namely, the difference between the spirit and the soul. And so we shall say that the philosopher Plato defines the soul in this way: The soul, he says, is an incorporeal substance moving the body. Aristotle, however in his definition of the soul, has it thus: The soul is the perfection of the potentially acting and living body. So now let us explain these two definitions and we begin with the first, which is that of Plato, and let us show that the soul is a substance and we say so because whatever receives opposite things, when it is a unity and immutable in its essence, is a substance. But the soul receives virtues and vices though it is a unity; so the soul of Plato, which is immutable in its essence, and thus it is a substance. And likewise we say that whatever moves a substance is a substance, and the soul moves the body. The body, moreover, is a substance; the soul is therefore a substance. And because it is manifest by clear arguments that the soul is a substance, now let us show that the soul is something incorporeal, and we say: Qualities of each and every body are perceptible, and whatever has qualities that are not perceived by corporeal sense is incorporeal. Moreover, the qualities of the soul are virtues and vices, which are insensible; the soul, therefore, is incorporeal. And likewise every body is subject to all or any of the senses or some of them. But the soul is not subject to all or any of the senses; the soul therefore is not a body. Likewise, every body is either animated or not animated, and if the soul is a body, either it is animated or not animated; and it is impossible that the soul should be inanimate if it is a body

because it is not fitting that the soul should be inanimate. And if we should say the soul be animated, the discourse on the soul of the soul will be thrown up to us again: "whether this (soul of soul) is a body or not", and this would go on ad infinitum; therefore, the soul is not a body. And likewise, if the soul is a subtle body, it will be air, a subtle spirit diffused through the whole body, or it will be fire; and if it were so, it is necessary that that spirit or fire have its own form or its own power, because unless there be to it some particular form or a particular power, that is, unless it have some property which fire or air does not have, all air or fire will be soul, but if there were to be some species peculiar to it, that species would be soul. Likewise, if the soul were to be a body, it is necessary that its body be simple or composite; if it were to be a simple body, doubtless it would be fire or air or water or earth. And if the soul were to be one of these elements absolutely, that is, without any power or any particular form by which it is separated from that which is a participant with it in the genus, everything which would be of its genus will be soul. And so it is proved that if the soul were to be fire, all fire would be soul, and if it were to be air, all air would be soul, and so on with the other elements. And if it were to be so, every body that contained that element would be animated. For example, if it were to be air, the lung and the veins and an inflated bag would be animated; and if the soul were to be water, a vessel filled with water would be animated; and such words are base and vain. And if the soul were to be a composite body, then the body would be a soul, not a body. And because it is now clear that the soul is an incorporeal substance, now let us explain in what ways it moves that body. And let us say that everything that is moved is either moved by the motion of its mover, just as a wagon is moved by the motion of oxen, or it is moved when that which moves it is not

moved; because what moves something either moves and is moved or moves and is not moved, and this happens in four ways; because either it will be by the natural desire of that by which it is moved, in the way that a lover is moved towards the one whom he loves, or by hate or flight or terror, just as an enemy is moved away from his enemy or against him; or through a natural act, in the way that a stone is moved by weight, when the weight by itself be immobile; or because that which moves is the principal occasion or cause of that which is moved, in the way that craftsmanship is the cause of motion in the movement of a craftsman when craftsmanship is not moved by the motion of the craftsman. So the soul moves the body and it itself is not moved by its [the body's] motion. The soul, therefore, is the cause of the motion work and change, in animals through the will, and it itself is not moved by any kind of motion of the body because it itself is incorporeal. We see, therefore, from these ways about which we have spoken, the kind of motion by which the soul moves the body, and let us say that the soul moves the body in the fourth way from the second kind of motion, that is, it moves the body when it itself is immobile. It moves because it is that principal occasion or cause of its motion, because a man operates through it, that is, through the soul, and chooses by it; and he who chooses is moved because he operates. And just as craftsmanship is the cause of motion in the craftsman, and that craftsmanship is not moved by the motion of the craftsman, so the soul moves that body but is not moved by its motion. The soul therefore is the cause of the motion of animals through desire and will and through work and change, and it itself is not moved in any way by the kinds of motion of a body, because it is incorporeal. And because we have now discussed the definition of Plato according to which he has defined the soul and we have made clear the interpretation of all

its parts, now we will consider the explanation of the definition of the philosopher Aristotle. The philosopher Aristotle thus defines the soul: He says that it is the perfection of a potentially living and acting body. Moreover, in the book of Aristotle which treats of the soul the definition is the following: The soul is the perfection of a potentially living organic natural body. Let us return to the work. He says "potentially" because certain things are said to exist potentially, and certain ones, actually. And when a thing arrives at its act, it is denominated by its perfection; for this perfection is the reception of its form. Indeed, it is from this reason that the soul is said to be the perfection because an animated being is animated, then it is said to have become perfected, and its perfection is the reception of its form, which is to say that it is a sensible animated being with voluntary motion. It is established therefore from these things we have said that the soul is without doubt the form of an animal since it is the perfection of that animal because the perfection of a thing is the reception of its form. And because it is definitely proved that the soul is the form and that we call this form "perfection", it is necessary for us to enumerate the kinds of perfection and to choose which of them is relevant to the soul. Therefore, we say that perfection is said to be of two kinds: there is primary perfection and secondary. For primary perfection in a man is wisdom and skill; secondary perfection in man is applying himself in those things which he acquires of knowledge and skill. For example. a physician is said to have primary perfection because of his knowledge of medicine; when he begins to employ what he knows, he is said to have secondary perfection. Therefore the soul is primary perfection, because he who is sleeping, though he lack sensation while he sleeps, nevertheless has a sensible soul, and every form and perfection is the form and perfection of some thing The soul, therefore, is

the form and perfection of the body. Moreover, there are two kinds of bodies, because there are certain bodies in which the form is natural, such as animals and trees, fire and water, and whatever has natural motion in itself; and there are certain things in which the form is acquired through craftsmanship, such as a boor and bench. The soul, therefore, is the form of a natural body because the body does not exist from the acts of craftsmanship. Too, a natural form differs from a form [made] through craftsmanship because a natural form is a substance and the form from craftsmanship an accident. Therefore, the soul is a substance because it is the form of a natural body. Moreover, there are two kinds of natural bodies, because certain ones are simple, while others are composite; simple ones are things like air, fire, water and earth; composite ones are such things as animals and trees. Now the soul is not the form of a simple body, but of a natural composite one, whatever has a soul is animated, that is, it lives, and whatever lives is changeable or destructible and needs food by which it can regain what has been destroyed in it and which helps it in the processes of life, giving it growth. For the food it needs different instruments, of which some are necessary to it for carrying it down for the repairing of the body and making it run through and penetrate, like the throat and veins in animals and the trunk and branches in trees. And certain of them are necessary for the body to be restored that throw from it what is superfluous, like the pores in animals or the outlets for resin in trees. Also the instruments are multiplied in animals according to the extent of their perfection and the number of their operations, because if something is an animal there are members vital to it such as the heart, brain, and whatever is connected to them; and if it is a sensible being, it will have nerves and senses, and if it has voluntary motion it will have nerves and alaadal, that is, venous flesh; and if that

is so, it has been well and properly said that the soul is the primary perfection of a potentially living organic natural body. And this definition is general, full and sufficient for every soul which exists in a corruptible or dissoluble body generally. Now because we see the first definition change and in its place "potentially living" put, it does not differ much from the other [definition], because the interpretations of both definitions is one. Indeed, by saying a thing is living potentially, he does not want to convey by this that a body would stand thus in its essence before the soul existed, after which it would receive the soul by that through which it was possible for it to live. But he wants us to know, when he says "potentially", that it already had the organs by which it would be possible for it to perform the acts of life. "Organic", therefore, has the same meaning as "potentially living". This is Aristotle's definition by which he has defined the soul, together with its explanation, which we have presented and made clear in each of its parts.

And because we have explained both the definitions of Plato and of Aristotle and have made clear the meaning of each of their parts, now let us speak about the powers of the soul, and we say that the primary powers of the soul, which belong to it in potentia in the manner of genus, are three: the first is the vegetative, the second the sensible, and the third, the rational, and these powers are [also] indifferently called souls. For one [sometimes] speaks of the vegetative soul, and also the sensible [or] brutish soul capable of motion, moved, that is, by the will, and the rational soul which uses reason, knowledge and thought. Now the vegetative soul, which in other books is called "seminal", is common to ourselves, to trees, plants and animals; and the sensible soul which is elsewhere called vital, is common

to us and the animals; but the rational soul is peculiar to man. Now the work of the vegetative soul is to nourish and to restore, and it does this through four powers which are called "natural", and these are the "attractive", the "retentive", the "digestive" and the "expulsive" [powers], and this work is found in all things with the functions of life, that is, in trees and plants, in animals and man. The functions of the sensible soul, which is called "vital", are such things as vision, hearing, taste, smell and touch, namely the five senses of the body and fantasy and the motion of moving from place to place at will. And these functions are found in every animated thing, that is, in men and animals. The tasks of the rational soul are knowing, foresight, judgement, doubt, vision and memory, and these functions belong to man among the other animals.

Since with the help of God we have already explained what spirit is and the soul, now let us speak about the difference between them, and let us say that the first difference between them is that spirit is contained in the body, but the soul is incorporeal; and that spirit is contained in the body, but the soul cannot be contained in the body. And spirit perishes when it is separated from the body; as to the works of the soul, they perish with the body, but it itself does not perish. Also the soul moves the body and is responsible in it for senses and life, through the mediation of spirit, while spirit operates this without any mediator. The soul moves the body and transmits life to it because it is the first cause for this and works in the body. In fact, spirit also operates this and it is the secondary cause. Spirit, therefore, is the more immediate cause of life in the body and of its sense and motion and of its other acts, while the soul is the more remote cause of this. Indeed, since the human body

is composed of very hard parts, which hard parts are bones or cartilage, nerves and veins and other things like this, and of humid parts, which are the humors, namely, blood, phlegm and the two kinds of bile; and of spirit which is in the ventricles of the heart and in the brain and arteries and in the nerves; all spirit which is more subtle and clear within these parts will be stronger and better fitted than other parts of the body for receiving the acts of the soul according to the degree of its fineness and clearness. Because of this, philosophers have said that the powers of the soul follow the complexions of the body. Therefore, when the complexion of someone's body is in a state of perfect balance, the spirit in his body will be in a state of perfect balance as well. But in someone whose complexion of members in which spirit resides is less perfect in its particular mixture, the spirit [also] will be imperfect in that subtlety which it should have, and the acts of the soul will be imperfect on account of this. Thus the powers of the soul are imperfect in boys and in weaker in women, and it is similarly so among peoples in whose complexions heat or cold dominates because of their propinquity to the sun or distance from it, like the Ethiopians and Slavs and people like these. Similarly because of the actions of the soul on the spirit will be different: [1] Life, the breath and the pulse are made by spirit which is in the heart; inasmuch as this spirit in comparison with the other spirits is more like air and less subtle; [2] afterwards through the spirit which is in the front ventricles of the brain sense and fantasy occur because of the increase of subtlety it acquires over the spirit which is in the heart; [3] then through the spirit which is in the remaining ventricles thought and foresight occurs, according to the subtlety it receives beyond that of the other spirit, because it needs to have an abundance of fineness when one wants to remember something of old that has preceded and whose time has long passed.

And this is sufficient for you on the matter about which you have asked. May God keep from you all sadness and send away whatever is to be feared and give you fortune in this and in the future world.

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Figure A.

Figure B.

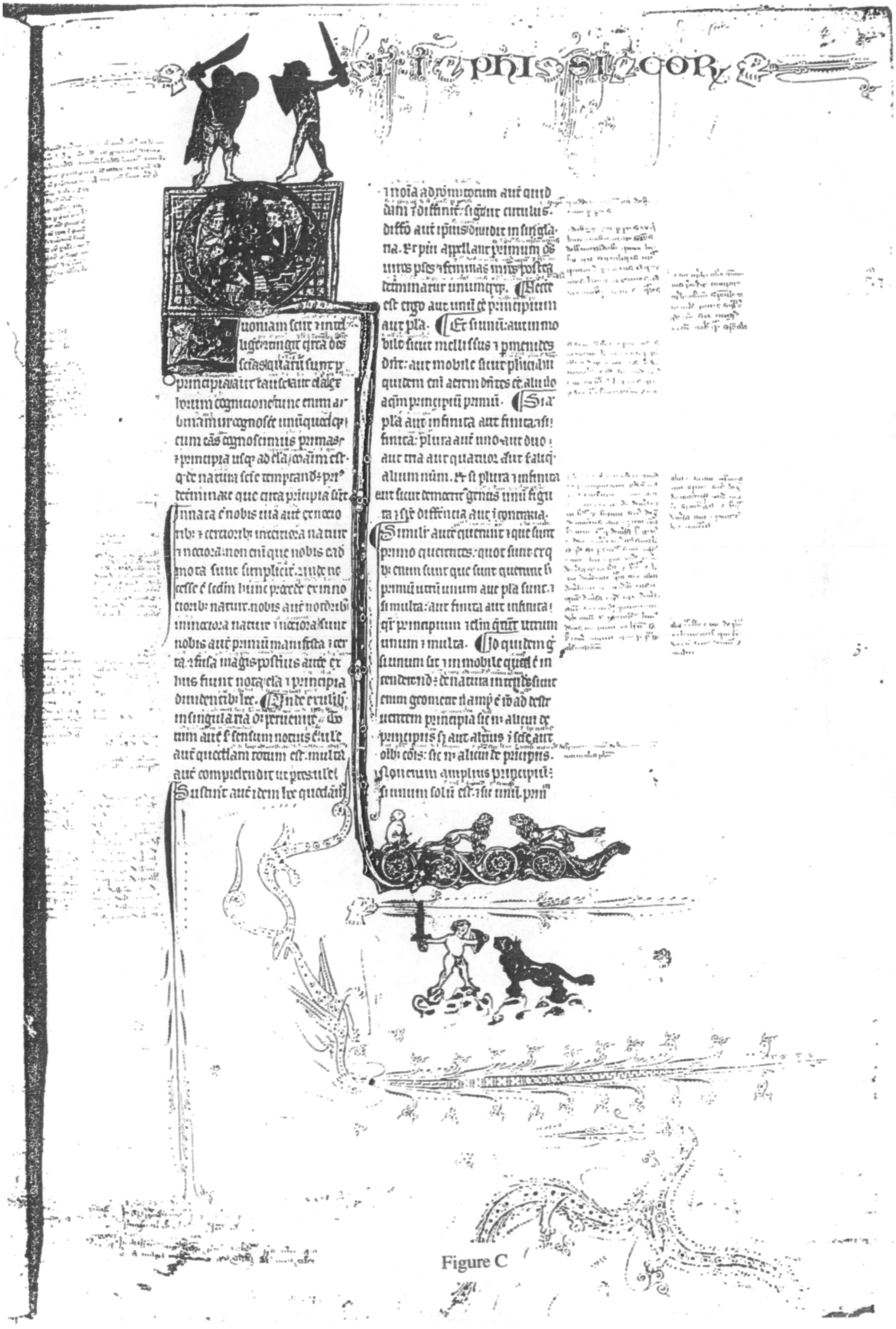

Figure C

Figure D.

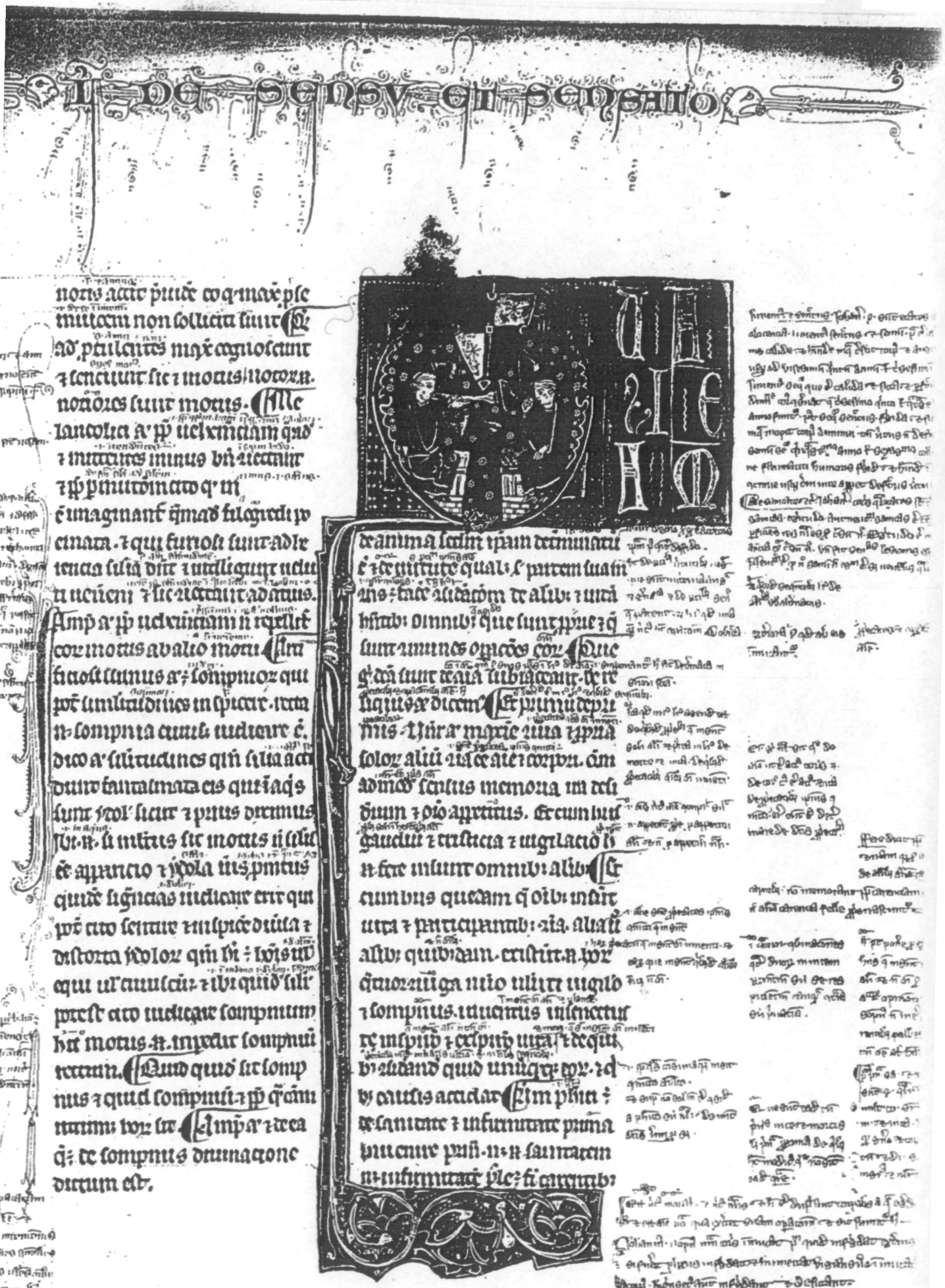

Figure E

Figure F.

Explicit sententia siqz libri ab de bona fortuna tradita a fre egidio romano ordinis frm heremitarz sci augustini:

Interrogasti me &c. Cu dicitur sic liqz de aia sicz de operibz aie. si libro de aia et libis. Valentacis. et qz diuisitas opponit ipsi aie sedz ad diuisitate utriqz mediatibz qbz opat ipa aia. Jo sll dicitur aristotiles nam ist interior. et vgu e organu primu. ipsi aie. s. spe mediante q. ifluit aia i oia pticlaria structura. et opat sensu acqz motum. Jo utilitatis ca intendit auctor iste. s. qstalulus de mitiare de spu. et qz spe e finalis. ipsi aiam ut ime recipiat aie ifluentia. qd po fiere eo q e corporale et clarz. Jo sll dicitur de aia. et de dia spe ad aiam. et qz sua stia qplet in hac dia io ab illo sicut adqplentio denotat iste lib. et vlentm ite libis valentacos lib de aia. cu qz e de bn ea. alij a de ea. cu qz spe dicitur et hi lib e cae istrm omm opponit aie de qbz dicitur i libis precedentibz. Didicimus iste lib i duas partes i phemiu et ethicu. et hic tempe i. Ope e qdam corpl. p i duas i p dat intentionem sua. i sua modu precedendi. sa. i. et vsus sui. p i duas i p dat intentionem. et no qz sebne cuidam anneo suo. s. luce. i sa specificat sua intentionem. sa. i specificationem uitae arrogantia et libi ascribendo hi opus et auctoritatem edidit et hi opus notando plures phos. Tunc sequitur illa pt. et usus sui i qz dat modu precedendi et dicit i duas qz p dat modu pcedendi i gnali. sc i spale. sa i. nec a tempe dicit adhc p i duas qz p dat modu pcedendi i gnali. po subdit duplice ed cam. sa i. qz nouit te. et i d. p duas cas. sa i.

Pte est qdam corpl bile &c. Et credo.

Dicitur pce phe. h tempe pt excedentia et dicit i duas i p dicitur de aia. et spu diuisim. i sa de aia dicitur eorz ad inuicem. sa i et qz auxiliatur eo. adhc p i duas i pma dicitur de spu i sa de aia. sa i narrare ad. adhc p i duas. i p supponit dione spe in aiale et uitale differt ut. i sa ad manifestationem suaz diffonu dicitur specialiter de utrqz. sa i. qdam qz laudabilibz. p hz. d. p qz duae sunt diffones. sa i. et sile. et no qz i diffone spe uitalis p pnt qz de corpe bile dicitur loco dicit ei tangit. s. ortu spe et uita p qm referunt ad operationem ei &c. Sed et phi spe sicut i bruta sicut i homine. et tm dicitur de spu finali. p cognitione spe q est corpe humano. et io differt spm. quia e in corpe humano. et tm diffo intelligenda e de oi spu uitali. Sed et qz i dicit hiatus. et duo gna venarum. s. vene et pulsatiles. et qbz defertur sangis p cocu cordis. et iste uene illocantur. et iste vene pulsatiles et qbz deferunt spe uitalis p tocu corpis. et iste uocantur

Figure G.

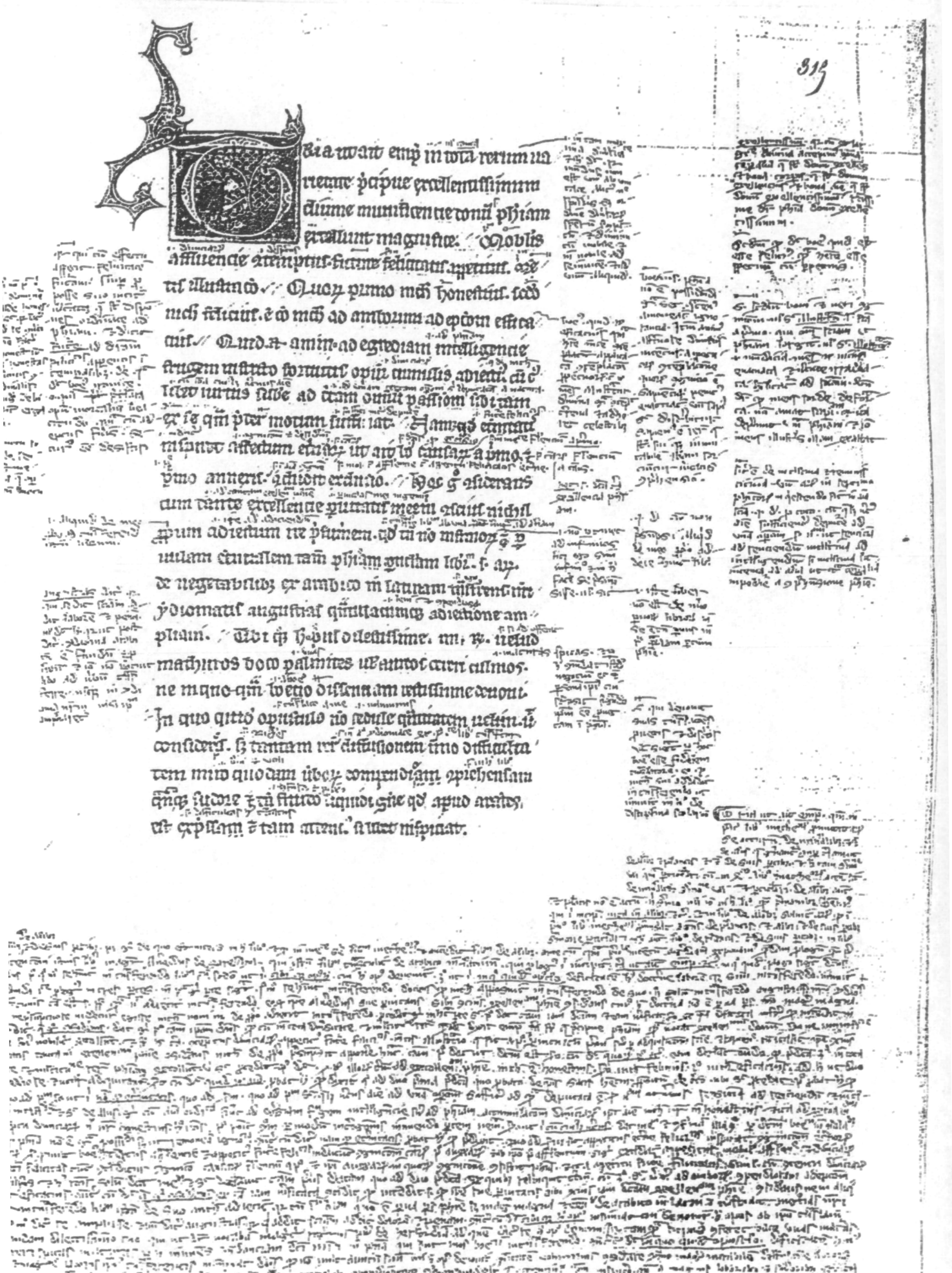

Figure H.

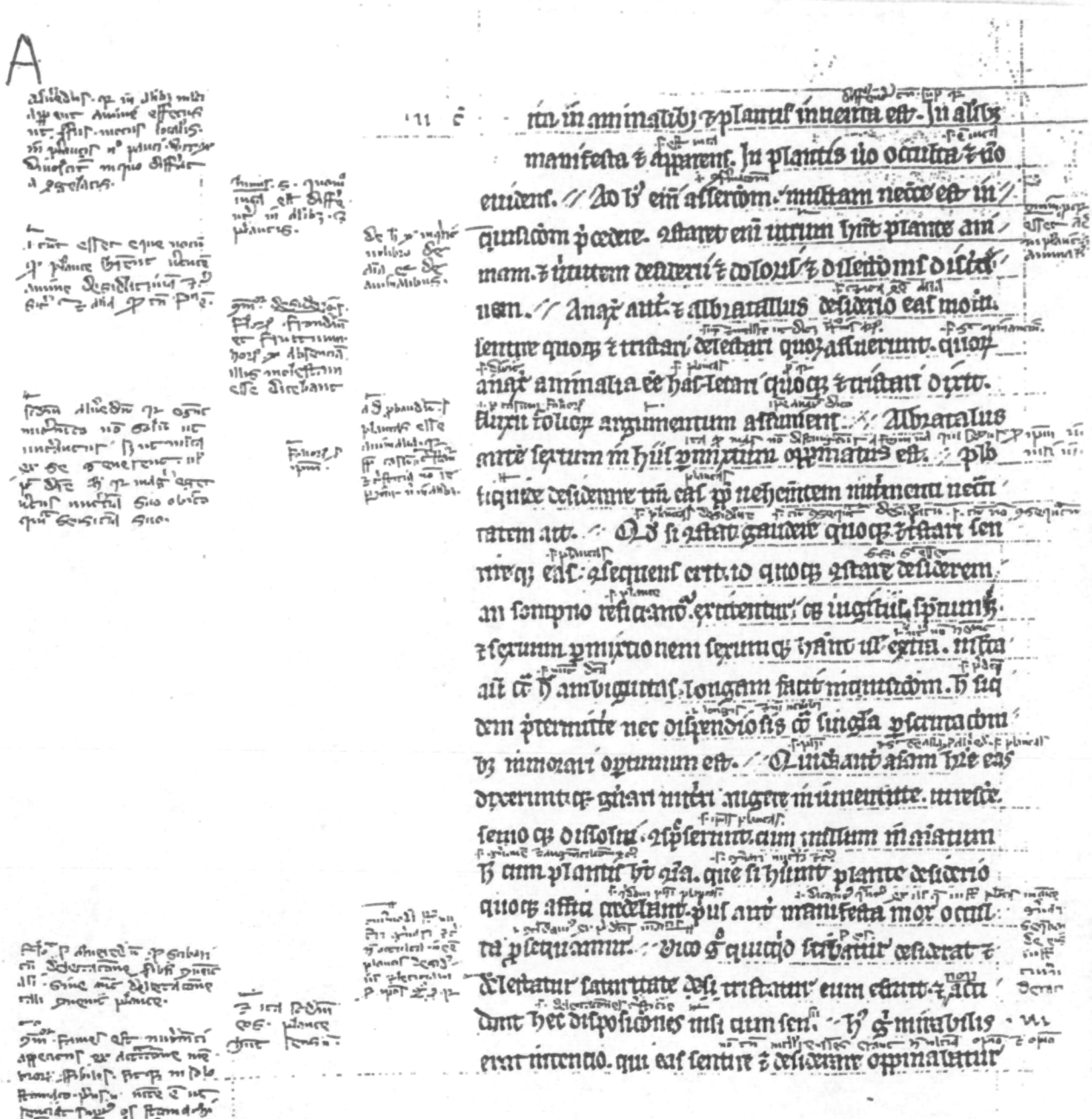

Figure I.

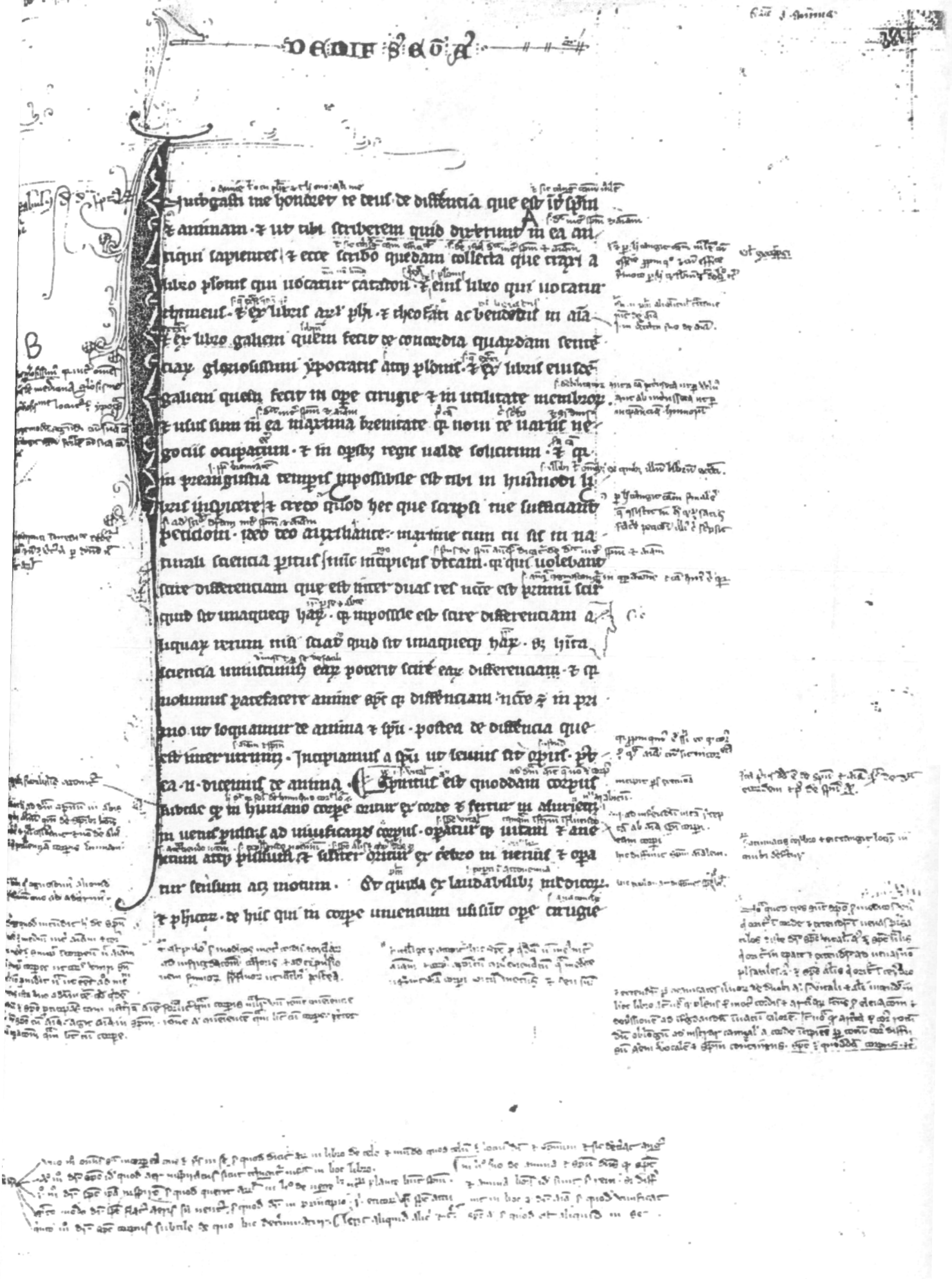

Figure J.